IMPROVING LITERACY ACHIEVEMENT IN A DISADVANTAGED PRIMARY SCHOOL: EMPOWERING CLASSROOM TEACHERS THROUGH PROFESSIONAL DEVELOPMENT

EITHNE KENNEDY

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DECLARATION

I hereby certify that this material, which I now submit for assessment on the programme of study leading to the award of Doctor of Philosophy is entirely my own work and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work.

Signed:

Eithne Kennedy

ID No.: 54102871

Date: 10/09/'08

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ABSTRACT

Improving Literacy Achievement in a Disadvantaged Primary School: Empowering Classroom Teachers through Professional Development

The magnitude of the achievement gap between children in disadvantaged schools and their more advantaged peers has been well documented (Eivers et al, 2004; LANDS, DES, 2005; Weir et al, 2003). Government response has primarily been in investment in schools in terms of extra staffing, resources, smaller class sizes and early intervention programmes. Until very recently, there has not been a focus on supporting the quality of literacy instruction in the regular classroom. This study set out to investigate: (a) how a research-based best practice balanced literacy framework could be designed for and implemented in the Irish context in collaboration with a Band 1 DEIS school (the Irish Department of Education's current scheme for schools in areas of high socio-economic disadvantage); (b) the particular conditions, resources and kinds of professional development required to support teachers in implementing such a framework and how teachers would respond to the change process; (c) the impact of the changes on children's motivation and engagement with literacy, their knowledge of literacy strategies, and their achievement on standardised tests of literacy; and (d) parents' perspectives on their children's motivation and engagement in literacy following the changes in instruction. The study was informed by the literature on effective schools and teachers in high-poverty areas that were successful in raising achievement in literacy, the literature on professional development and the literature on current understandings of essential pedagogical content and strategies in literacy.

The partner school agreed to collaborate in the research over a two-year period. The classroom teachers of four First classes, the children in these classes, the children's parents, and four special education teachers consented to participate. A mixed methods design was employed which allowed for the exploration of multiple questions using the following research tools: questionnaires; interviews with teachers, children and their parents; observations of teachers in their classrooms; and a range of formative and summative assessment measures designed to track changes in children's literacy achievement.

Findings indicated that, by the end of the study, the children had significantly higher achievement in reading, writing and spelling than would be expected based on their pre-test scores. Teachers attributed these achievement gains to the changes they had made to their classroom instruction. Teachers reported having higher expectations for the children and higher levels of self-efficacy and confidence in their own ability to address literacy difficulties. No one factor emerged as the agent of change; rather, a synergy of factors at school and classroom levels were identified as contributing to their success. These included the on-site, context-specific professional development which enabled teachers to expand their expertise in terms of subject knowledge and new approaches and methodologies; the provision of resources (mainly reading materials) which contributed to the motivation and engagement of the children; regular opportunities for professional debate, dialogue and reflection among teachers through planning meetings; collaboration with teaching colleagues at the same class level and team-teaching with the special education team. The adoption of a 90-minute block of uninterrupted time for literacy signalled a school priority on literacy. It allowed for the provision of a cognitively challenging curriculum as well as establishing a basis for greater engagement in literacy. Teachers and parents reported that, following the programme, children were more motivated, engaged, and strategic in their approach. They were choosing to read and write both inside and outside school and this had had a positive influence on the family as a whole. Teachers felt that the parental component was valuable and identified it as an area meriting further development. Thus, a focus on high-quality instruction combined with support for teachers and parents can begin to help children in disadvantaged areas to reach their potential on key aspects of literacy.

1 CONTEXT FOR THE STUDY

In 2003, the United Nations declared 2003-2012 as its decade for literacy and set the ambitious target of primary school education for all children by 2015, thus recognising the critical importance of literacy skills in today's knowledge society. Indeed, according to the United Nations Education web page: 'Literacy is a human right, a tool of personal empowerment and a means for social and human development' (www.unesco.org). Since the start of the new millennium, governments around the world have put an unprecedented focus on educational policy, to ensure the acquisition of literacy skills for all children. This implies a recognition, that the acquisition of such skills often mediates an individual's future educational and financial opportunities in life and their social, emotional and cognitive development, while also contributing to the wealth and future of their nation.

1.1 Policy in the U.S.A.

In the United States and United Kingdom, literacy has become highly politicised and the focus of sustained media interest. Following the publication of the National Reading Panel Report (NRP) in 2000, which was set up to explore the research base on how best to teach reading, the No Child Left Behind Act was enacted into law in the US in 2001 and is currently being updated. It stipulates that *all* teachers need to be highly qualified to teach reading. This central tenet recognises the importance of the teacher and gives a central role to the classroom teacher as the main agent to provide high-quality reading instruction, particularly in the early and most critical years of schooling. Moreover, it mandates scientifically based instruction for the teaching of reading and highlights the importance of informal assessment techniques for identifying the needs of children and providing a timely and appropriate response to their needs. However, the NRP has been criticised for reporting only on experimental research while effectively excluding many studies that have led to valuable understandings about the literacy process, and for failing to examine key aspects of literacy development such as writing (Pressley, 2001). In order to support

teachers in acquiring high levels of knowledge in relation to the latest research on literacy and translating this into effective teaching in the classroom, provision has been made for professional development that will enable teachers to further build their expertise in this area. It was expected that this focus on literacy would be instrumental in reducing significantly the numbers of children in need of specific intervention outside of the classroom and that all children would leave school with reasonable literacy skills. While this all sounds very good in theory, in practice implementation has been controversial. Accountability measures built into NCLB have seen a major increase in testing and the pressure for schools to make 'adequate yearly progress' or face punitive consequences. This has had the effect of narrowing curriculum to meet the standards and a decrease in instructional time as teachers prepare students for testing. In a 2007 article in the International Reading Association's bi-monthly newspaper, 56 teachers across the USA who had received awards for teaching excellence had mixed opinions on the NCLB legislation (www.reading.org/publications_readingtoday/samples/RTY-0706-teachers.html). Teachers felt: 'the intent was admirable, but some of the means to the end are not so admirable." Another teacher felt the worst result of NCLB was that teachers had lost their autonomy. "We have to do everything in lockstep," she said. Instead, she added, we should "allow the professional in the classroom to mould the program to the needs of the students." An independent review of the effects of the NCLB which examined the achievement data of 17 school districts across 12 sites in the US, has just been published (Gamse et al., 2008). While on average, daily instructional time spent on the five essential skills identified in the NRP report (2000) i.e. phonemic awareness, phonics, vocabulary, fluency and comprehension, was increased by 8.56 minutes per day in grade one and 12.09 minutes per day in grade two, accumulating to a weekly increase of ¾ hour instruction for grade one and one hour for grade two, there was not a statistically significant increase in children's reading comprehension. In addition, the impact of the legislation on the per cent of children reading at or above grade level was not significant. As Taylor et al.'s (2003) research reminds us, the "how" is as important as the "what" and simply increasing time on essential skills is not enough.

1.2 Policy in the United Kingdom

In the United Kingdom the National Literacy Strategy has been in place since 1998. This stipulated what and how teachers were to teach during literacy instruction in school. Recently, a review of national policy on reading in the early years has culminated in the publication of the Independent Review of the Teaching of Early Reading (DfES, 2006) or the Rose Report as it has come to be known after its first author. The findings of this report have been incorporated into a renewed framework for the Primary National Literacy Strategy (2006). The Rose report argued for the simple view of reading which sees reading as being composed of two distinct dimensions: word recognition processes and language comprehension processes. The teaching of phonics has been emphasised as the 'prime approach used in the teaching of early reading' (Primary Framework for literacy and mathematics: www.standards.dfes.gov.uk/primary). In addition, multi-sensory synthetic phonics has been privileged as the main approach to be used in the teaching of the alphabetic principle over all others. This has proved controversial. Hall (2006) situates phonics within the wider literacy curriculum and reminds us of the host of other factors that impact on learning to read, including how children view themselves as learners, how they view the reading process, the range of skills they need to be successful readers, and the influence of the teachers' views of the literacy process. These, she argues, in turn impact on the climate and pedagogy of the school and classroom as well as the home and the wider community. Thus, reducing the debate on the teaching of reading as to which phonic method to use certainly denies the complexities of the process. Prescription of curriculum tends to decrease creativity in teaching and focuses attention on acquiring the basics and achieving the standards set. In speaking about the teaching of writing in the UK, Grainger et al. (2005, p.178) argue that teachers have:

> ...not felt fully involved in shaping, controlling or managing the extensive overhaul of the literacy curriculum and as a consequence some have appeared insecure, tentative and even distanced from the teaching of writing...If teachers are to find ways forward to maintain their professional integrity, make use of their knowledge of child development and achieve high standards in writing then the adoption of a more creative stance and the assertion of their own agency in the classroom is essential.

The National Strategy's five-year Strategic Plan (DfES, 2006) has seen a move toward including schools in decision making for policy formation. In a letter to schools (2006), the Chief Executive charged with implementing the strategy has intimated a change in approach: 'we plan to harness the informed professionalism of practitioners and the leadership capacity within local settings' and asked schools to engage by 'providing further feedback and contributing to the updating of our Plan....and how we can more effectively support your work.' It remains to be seen whether current rhetoric on empowering teachers and drawing on within-school leadership will, in fact, result in enhanced literacy performance, not only on prescribed tests, but on a range of relevant measures.

1.3 Policy in Ireland

Here in Ireland, we have taken a partnership approach to education and as such we have not seen the polarisation of views on how best to teach beginning reading that have occurred in other countries. Nevertheless, the government here has focused attention on literacy and numeracy in disadvantaged schools in particular and in 2005 published its action plan for inclusion, the Delivering of Equality of Opportunity in Schools (DEIS, DES, 2005a), which brings together all of the government initiatives in disadvantage to date under the one strategic plan. The action plan is wide ranging and there are specific guidelines on how the issue of literacy will be addressed so that every child regardless of their socio-economic status will have the opportunity to reach their potential.

This intense interest in the teaching of early literacy and the shaping of policy to ensure that all children learn to read has occurred because in every country there are substantial numbers of children who leave primary school without basic literacy skills. In many instances, it is the children who live in high poverty areas who are most at risk of underachieving in literacy and hence failing to reach their potential.

1.3.1 Literacy achievement in disadvantaged schools

The achievement gap in literacy between pupils in disadvantaged schools and pupils in non-disadvantaged schools has been well documented over the years (Archer & O'Flaherty, 1991; Cosgrove et al., 2000; Weir, 2001). National surveys of reading standards in Ireland indicate that reading standards haven't changed in twenty years and that significant numbers of children are under-performing in reading. Data from the 1998 National Assessment of English Reading (Cosgrove et al., 2000) indicate that sixty per cent of the lowest performing schools are in areas of designated disadvantage and that pupils in these schools are performing significantly below the mean score of their peers in non-disadvantaged schools. At the time the current study was conceptualised, a number of reports had been published documenting the magnitude of the gap in literacy between children in disadvantaged schools and the wider population.

The Eivers et al. report (2004) established baseline data on the literacy performance of children in first, third and sixth classes in schools designated as disadvantaged. These data will allow for comparisons and trends in achievement to be tracked as testing re-occurs in the future. The report established that approximately 27-30% of children were performing at or below the tenth percentile compared with 10% nationally. At the upper end of the scale only 3% of children performed above the 90th percentile, compared with 10% nationally. These findings were confirmed in the smaller scale Literacy and Numeracy in Disadvantaged Schools (LANDS, DES, 2005b) study which found an average of 43% of pupils in very disadvantaged schools performing below the 20th percentile, though it was as high as 60% in some cases and scores tended to decline as children progressed through the school system. Weir's (2003) evaluation of the literacy achievement of children in 6th class who had participated in the Breaking the Cycle scheme (involving the most disadvantaged schools in the country) since its introduction by the DES in 1996, found that on average 38% of the these children were performing below the 10th percentile. In fact, Weir speculated that this figure was a conservative estimate and that the true figure was closer to 50%. Conclusions were based on the fact that teachers had excluded almost 8% of pupils from taking the test on the basis that the children would not be able to attempt it; this represented a major increase on

the percentage of exclusions (1%) in a similar study in 1996. As these figures show, the gap between children in disadvantaged schools and pupils in schools in general is as wide as ever, despite government efforts to improve the situation. These data also suggest that in the most disadvantaged schools there are large numbers of children leaving primary school without basic literacy skills.

It also seems that basic skills in literacy are no longer enough for successful entry into higher education or into many positions in the world of work. The Programme for International Student Assessment (PISA) defines reading as 'the ability to understand, use and reflect on written texts in order to achieve one's goals, to develop one's knowledge and potential and to participate in society' (OECD, 2006). It measures students' ability to retrieve information, interpret it and to reflect upon and evaluate it. These are higher-order thinking skills and require high levels of literacy. While Ireland has performed well on PISA reading literacy, it is clear that many children in our educational system, as it currently stands, will have trouble meeting these challenges – 12.2% of 15 year-olds scored below Level 2 in PISA reading literacy in 2006 (Eivers et al., 2007), indicating that these students had poor literacy skills. Moreover, if it is accepted that those who were absent on the day on which PISA was administered in their schools are more likely to be low than high achievers (Cosgrove, 2005), this estimate is likely to be several percentage points higher. It is also clear from PISA that larger proportions of students attending schools designated as disadvantaged have poor literacy skills, compared with schools not designated in this way (Eivers et al., 2007).

Children who can perform well on complex reading literacy tasks have access to a greater body of knowledge, compared with children who cannot perform as well. This can contribute to the development of a 'knowledge gap' (Tichenor, Donohue & Olien, 1970) as the range of information acquired and retained by individuals differs. This is certainly true of today's society where access to information is instantaneous through the World Wide Web. Not having the skills to participate in this knowledge society seriously compromises an individual's 'income, social mobility and ultimately their quality of life' (Neuman & Celano, 2006).

1.4 Rationale for the Study

1.4.1 Effective schools and teachers of literacy

Alongside Irish studies, there were a number of developments internationally that gave rise to the current study. In the latter half of the 1990s and in the early years of this century, there were a number of influential large-scale studies published that examined differences amongst schools that had 'beaten the odds' and more typical schools (Lein et al., 1997; Puma et al., 1997; Designs for Change, 1998; Johnson et al., 1999; Taylor et al., 1999; Mosenthal et al., 2002; Lipson et al., 2004). Schools that had 'beaten the odds' had succeeded in helping the majority of their pupils to perform well in relation to literacy, despite their socio-economic status. These schools had higher achievement levels than one would expect given the demographics of the pupils attending the school. It seemed that there were a number of school-level factors that distinguished these schools from their more typical peers, including: a strong focus on improving student achievement in literacy, strong school leadership, collaboration between classroom teachers and support teachers, all staff members taking responsibility for helping all children to acquire literacy achievement, use of assessment data to inform teaching, and a sustained on-site professional development programme focused on school and student needs and strong home-school links.

Paralleling these studies were a number of large-scale studies of effective teachers of literacy in both USA and the UK (Pressley et al., 1996, 1997, 2001, 2002, 2003; Taylor et al., 1999, 2002, 2003; Wray et al., 2001). Like the effective schools research, it emerged that these outstanding teachers succeeded in helping their pupils perform better in literacy than their more typical peers, and that there were several defining characteristics to their instruction in literacy including a balanced literacy framework, a metacognitive approach to instruction, skills taught in a meaningful context, use of formative assessment and expert classroom management.

1.4.2 The nature of instruction for lower achieving readers

Another aspect that influenced the design of the current study was the body of research that indicated that children who struggle with literacy often receive qualitatively different instruction to their higher achieving peers (Knapp, 1995; Allington, 1983, 1994; Allington & McGill-Franzen, 1991), which can exacerbate the knowledge gap referred to earlier. In many instances, these children are given a slower pace of instruction and more emphasis on basic skills taught in isolation from meaningful literacy activities rather than on higher order and meaning-oriented instruction. They are more likely to have a fragmented experience in relation to literacy instruction as they are usually withdrawn from the classroom for extra support and receive instruction that is very different to the classroom literacy programme and which can have the potential to confuse the child (Santa & Hoien, 1999). Knapp (1995) concluded that children in the classrooms that combined higher-order thinking skills with meaningful literacy experiences acquired the basic skills alongside the higher-order skills and that they performed significantly higher on standardised tests of reading relative to children in classrooms that did not combine these elements. Here in Ireland, it is not just disadvantaged schools that are grappling with providing a cognitively challenging and stimulating curriculum for students.

Although children in non-disadvantaged schools have higher average achievement than children in disadvantaged schools, a recent evaluation of curriculum implementation (DES, 2005c) found that while 'significant progress has been achieved in the implementation of the English curriculum in three quarters of [all] schools,' there remained scope for improvement in many areas, even in the schools that were further along in terms of curriculum implementation. Particularly highlighted was the need for an emphasis on higher-order thinking skills, the critique of texts, the emotional and imaginative development of the child and the teaching of skills in a context. In addition, the teaching of writing was weak in a significant number of schools. School level factors needing attention included the development of coherent, appropriate and detailed whole school plans, and greater cohesion between the learning support and classroom programmes. Up to a quarter of teachers were identified as needing help with the teaching of reading. One wonders if the

achievement gap between schools serving disadvantaged areas and other schools might widen even further if these concerns were addressed. In any case, it seems that many of our schools, regardless of their socio-economic composition, are grappling with the complexities of teaching literacy well.

While there remains debate on how best to teach literacy effectively, there is common ground amongst reading educators on the essential skills that children must develop in order to become competent readers and writers. The skills acknowledged as being critical for literacy development are: alphabetics (phonemic awareness, phonics, word knowledge); comprehension; vocabulary; and fluency (National Reading Panel, 2000). It is important that classroom instructional frameworks for literacy incorporate these essential skills into their daily programmes. The research on effective teachers has provided much insight into how teachers teach these skills well, yet it seems that much of this information is not making its way into classrooms. The US report *Preventing Reading Difficulties in Young Children* (Snow, Burns, & Griffin, 1998), which preceded that of the National Reading Panel Report (2000), concluded that "quality classroom instruction in kindergarten and the primary grades is the single best weapon against reading failure".

1.4.3 External factors affecting literacy achievement in disadvantaged schools

While good first teaching is important in helping all children to acquire literacy skills and is particularly critical for children in disadvantaged schools, it must also be acknowledged that there are many other factors at play that support or hinder the development of literacy skills and over which schools have little control. Children living in poverty are more likely to have parents who are unemployed and undereducated, and they may experience more instability in their lives (Cregan, 2007). They may also experience many of the social ills associated with poverty such as violence (Puma et al., 1997). Level of educational achievement is also associated with income and as many parents have low attainment they also have low incomes. Duncan & Brooks-Gunn (1997) hypothesise that poverty influences literacy achievement in two major ways. Firstly, in terms of material resources, parents have less disposable income to spend on books and other educationally stimulating materials or indeed on providing educational experiences outside the home.

Secondly, this limited access to educational materials curtails the nature and quality of parent-child interactions in the home. Thus, children have less opportunity to be read to and to develop the sophisticated language patterns outside of their usual day-to-day interactions and, consequently, have less opportunity to learn about the world and acquire the decontextualised language that is valued in school. So even before entering school, the differences in materials and the nature of interaction in the home 'begin to define what children are taught and what is modeled and reinforced in these early years, just when cognitive connections are forming' (Neuman & Celano, 2006, p.180).

Lee and Burkham (2002) found that the average cognitive scores of children at age four in advantaged communities was 60% above that of their disadvantaged peers, indicating a large gap between these two groups prior to schooling. Hart and Risley (1995) in their influential observational study of 42 American families of varied socio-economic status (as determined by parental occupation: professional, working class, families on welfare) observed parent-child interactions in the home when children were between the ages of one and three. They found that the *quantity* of verbal interaction was significantly less in homes in disadvantaged communities than in the homes of professionals and that this affected children's vocabulary acquisition. For example, they tracked the number of utterances in each family per hour and found that in the homes of professionals children were hearing an average of 2,153 words per hour compared to just 616 in the homes of welfare families. In addition, they found that in the homes of professionals children experienced encouraging feedback frequently and discouragements infrequently (a ratio of 6:1) while in the homes of welfare children the ratio was closer to 2:1. This is related to the notion of the kinds of cultural capital that exist in the home. Kellaghan (2001) suggests that there are six components that are associated with cultural capital and success in school-related tasks and that these are found more often in middle class homes: (i) modeling of complex language; (ii) stimulation to explore and discuss ideas and events; (iii) providing motivation for, and guidance in school-related activities and encouraging independent thinking; (iv) holding and communicating high expectations for success in school; (v) providing help with homework; and (vi) ensuring that activities engaged in are developmentally appropriate. Thus children who possess this kind of capital tend to do well at school. As Kellaghan (2001, p.17)

states: 'schools are middle-class institutions, espousing, indeed creating middle-class values and practices that contribute to success in later life.' Of course these are generalities and there is considerable variation within families, whatever their socio-economic status. Indeed, according to Kellaghan (2001, p.14), 'it is what parents do in the home, rather than their socio-economic status, that is critical to success at school'. Therefore, it seems that homes that have access to a range of educational materials, parents who read to and with their children and where there is verbal interaction around books can contribute greatly to children's literacy development (Eivers et al., 2004). Moll and his colleagues (1992, p.134) contend that households typically termed disadvantaged contain 'ample cultural and cognitive resources with great *potential* utility for classroom instruction'. Teachers in that study visited the homes of some of their students (on the border between Mexico and the USA) and interviewed parents who had agreed to participate in the research in order to discover the 'funds of knowledge' (the social, economic and productive activities of communities) these families possessed. They subsequently developed integrated units of work for the classroom based on them which served to bridge the world of home and school enhancing home-school partnerships.

Researchers interested in language development have suggested that the language of children in low-income families is different to rather than deficient when compared with that used in school: 'Educational failure results from a mismatch between children's language and experience and the language and experience demanded by school' (Stubbs, 1980, p.143, cited in Cregan, 2007). The language of children in advantaged communities is more likely to be standard English and is therefore more congruent with that of the school and as such places them in a more privileged position from the outset. As Wolfram (1999, p.106) suggests: 'All children have to learn new ways of interacting with language when they go to school. Typically, however, the language socialization experiences of middle-class children prepare them to ease into school language patterns'. So for children in disadvantaged communities, this 'discontinuity' between home and school discourse can present major challenges and hinder their academic development. Here in Ireland, principals have cited oral language deficits as seriously impacting on achievement (Eivers et al., 2004), suggesting that a deficit view of children's language persists. Recent research (Cregan, 2007) suggests that the language of the home is merely different to

but not inferior to school language and that children require explicit support in acquiring the 'literate style' of language required in school. Schools place value on a child's ability to express him/herself orally or in written form and expect him/her to use language in a clear concise manner to display evidence of new knowledge and learning (Cregan, 2007). Children who come to school without this facility to use language are at risk of underachieving. Aside from familial differences, there is also evidence that living in a disadvantaged community and attending a school where there are large numbers of under-achievers has a larger negative effect on the academic outcomes of a child than if that same child attended school in a middle class area (Puma et al., 1997; Goldenburg, 2002; Eivers et al., 2004). Thus, schools located in highly disadvantaged areas are grappling with a range of factors as they seek to address the serious underachievement in literacy experienced by children living in poverty.

1.4.4 Attempts to close the gap

Here in Ireland, a number of policy frameworks have been developed to address various aspects of disadvantage. These include: The National Children's Strategy, the National Development Plan and the National Anti-Poverty Strategy. In response to these policies many government initiatives have been put in place in recent years, particularly in educational settings. To date these initiatives have focussed primarily on staffing and resources including: improvements in the pupil-teacher ratio; the appointment of large numbers of support staff in schools such as learning support, resource and home-school liaison teachers; and the funding of programmes such as Early Start, Breaking the Cycle, Giving Children an Even Break and, more recently, the DEIS strategy. Initiatives such as these have been designed to help schools compensate for the high levels of poverty experienced by their pupils. But as Cross (2004, cited in Neuman & Celano 2006) points out, initiatives that target funding and resources are based on the premise that that is what is at the heart of the problem and that equalising resources should equalise opportunity. However, funding alone has a poor history of success as Puma et al. (1997) discovered in the USA when they undertook a major review of the impact of government funded programmes. They concluded that there was a limited impact and that the gap did not narrow but

remained in place throughout a child's schooling. This has also been found to be the case in Ireland (Archer & Weir, 2004). While children in both advantaged schools and disadvantaged schools made progress, the rates of growth of children in disadvantaged schools were not accelerated enough to narrow the gap, even with participation in learning support programmes. So where a child started out is where s/he finished up in relative terms, still significantly behind more affluent peers.

Allington and McGill Franzen (2003) suggest that what has been termed the 'summer slump' has a major influence on the size of the gap in reading achievement between children in advantaged and disadvantaged communities. They suggest that the reading achievement of children from disadvantaged backgrounds declines over the summer months while the reading achievement of children from more advantaged backgrounds either remains stable or increases marginally. Cooper et al. (1996) in a meta-analysis of the literature on this phenomenon found that during the summer period an annual achievement gap of about three months occurs, which, if calculated over each of the years between Kindergarten and Grade five, amounts to 1½ years of a gap between children in disadvantaged schools and mainstream schools. Furthermore, they suggested that when this figure is added to any differences that already exist between children at the start of school that 'students from lower-income families often find themselves two or three years behind their more advantaged peers as they head to middle school,' (p.70). Therefore, efforts at closing the gap will also have to focus on making parents aware of the need to make time for reading in the summer months and the necessary resources to support it. Clearly, if underachievement in literacy is to be addressed, policy must have a dual focus – a focus on funding to equalise resources *and* on finding ways to accelerate achievement for those most in need of it.

This dual focus has been recognised in Ireland with the initiation of the DEIS strategy. Early intervention programmes such as Reading Recovery have been expanded and literacy co-ordinators appointed to help DEIS schools address literacy issues. Literacy co-ordinators have been trained in First Steps, an Australian programme, and have offered support to schools that wish to take on a specific programme to address literacy concerns. A Cuiditheoir (support person in literacy) service has also been in place since the inception of the curriculum for all schools, though this work with schools has been on an invitational basis. While these policies

are welcome and have enhanced literacy achievement as an aspiration, to date none of them has put in place a systematic well-resourced strategy to target improved literacy achievement by working *closely* with the *classroom* teachers *and* support teachers with levels of intensity sustained over time and designed to equip them with the latest research base on literacy. This has been noted by Archer and Weir (2004, p.29) who in a review of strategy for disadvantage in Ireland state: 'our impression is that the development of literacy and numeracy, while clearly central in all of the schemes, is not assigned the kind of priority that it receives in apparently successful initiatives in the USA.' They also suggest that future initiatives should include attention to (i) helping teachers and families raise expectations for children in relation to literacy achievement; (ii) enhancing professional development for teachers; (iii) supporting teachers in disadvantaged schools in maximising opportunities offered by smaller class sizes; and (iv) exploring ways of helping parents support learning.

The focus of this study was on bringing together the various strands of the research on disadvantaged schools and on best practice in literacy and on working with classroom teachers to help them further build upon and expand their expertise in literacy. It sought to bring the best of research-based best practice from the international base to the Irish classroom to enable teachers to make critical decisions on what was appropriate for their particular context and for the stage and development of their children. The International Reading Association (2000), in its position statement on excellent literacy teaching, reiterated the views in the current research literature that there is no one best way to teach reading and there is no one programme that can suit the needs of all children or indeed every school context. Rather, expert teachers of literacy have knowledge of a variety of methodologies and assessment tools and they know when and how to combine them into an effective instructional programme. Thus, rather than having teachers feel bound to a particular programme, this study sought to equip them with a repertoire of strategies, tools and methodologies from which they could choose. Specifically, it sought to work with classroom teachers to investigate how a research-based approach to literacy could be implemented in a highly disadvantaged school (Band 1 of the DEIS strategy) with a view to raising the literacy achievement of the children through the provision of sustained on-site professional development for the classroom teachers. It also sought

to address many of the concerns highlighted in the Irish research literature e.g. cohesion between classroom and Special Education Programmes (SET), differentiation, systematic planning and assessment of literacy and a focus on a cognitively challenging curriculum while simultaneously addressing the basic skills. Given the research base on student engagement in literacy as a key factor associated with achievement, the study also set out to work with teachers to help children develop reading and writing as a life-long habit – an activity that they would choose to do for the realisation of their own personal goals. This is an innovative approach and one not yet taken here in Ireland. It also sought to document the change process and to investigate the following specific questions:

1. What conditions, resources and kinds of professional development did teachers feel needed to be put in place in order to support them in changing their current classroom practice to that of a research-based best practice framework?

2. How would teachers respond to the challenges and how would they change over time?

3. How would the changes in instruction impact on:

    a the children's motivation and engagement with literacy and their knowledge of literacy strategies?

    b their achievement on standardised tests of literacy?

4. In what ways were parents involved in their child's literacy development and what perspectives would they hold about their child's motivation and engagement with literacy during the study?

Chapters two, three, and four outline the research literature underpinning this study. In chapter two the research base on quality professional development is outlined with specific reference to models and initiatives that have been designed for the improvement of literacy achievement of children in disadvantaged settings. Chapter three examines the lessons to be learned from the large-scale studies on effective schools and teachers and highlights the main issues in relation to disadvantage and literacy, with particular reference to Ireland. Chapter four summarises the specific

research that informed the design of the balanced literacy framework utilised in this study.

Chapter five describes the research design and gives a rationale for the employment of a mixed methods approach. The sample involved in the study and the ethical procedures followed are presented. It outlines the data collection methods and details the analytical procedures used to interpret the data. Finally, it discusses triangulation of the data and procedures undertaken to maintain trustworthiness of the data.

Chapter six provides a picture of classroom instruction in literacy prior to the study and chapter seven contains the results of the baseline assessment which was conducted at the outset of the study, and would be compared with children's progress at various points throughout the two-year period of the study. Chapter eight provides a synopsis of the various stages of the change process and the timeline of the various innovations that occurred throughout the study.

Chapters nine, ten and eleven present the analysis of the data collected throughout the study. Specifically, chapter nine documents the changes that occurred in classroom instruction and the teachers' perspectives on the utility and effectiveness of a balanced literacy framework for the Irish context. Chapter ten presents the changes that teachers perceived in the children and the effects of the change process on their own thinking and beliefs. Chapter eleven documents the changes in the children's reading, writing and spelling achievement and presents the perspectives of the children gained from interviews with them. Finally, chapter twelve summarises the main findings of the research study and outlines the implications of the research for policy on educational disadvantage in Ireland. It concludes with the limitations of the study and suggestions for future research.

2 REVIEW OF LITERATURE ON PROFESSIONAL DEVELOPMENT

As outlined in chapter one, large-scale educational reforms are in operation in many countries around the world today. Schools and schooling are under increased scrutiny and held to accountability to produce ever-higher standards and performance for their students. Teachers of course are at the centre of this change (Cuban, 1980) and this is particularly so in reform efforts that seek to close the well-documented gap in achievement between children in areas of high socio-economic disadvantage with that of their more advantaged peers. The provision of high quality and effective professional development has been a critical aspect of many of these reform efforts and is the focus of this chapter which is divided into four sections. The first section examines changes in the conceptualisation of professional development. The second section presents the research on the characteristics of effective professional development. Next, general models of professional development are presented. The final section presents specific examples of reform models in relation to literacy that have been informed by the research base on professional development and best practice in literacy.

2.1 A New Conceptualisation of Professional Development

Traditional forms of professional development have been once-off workshops and short courses typically conducted outside of school hours and off-site and have been termed a 'hit and run approach' (Darling Hammond, 1996). In these cases, teachers attend courses on topics they are interested in but the content is rarely geared to their specific needs, is often transmitted (Villegas-Reimers, 2003) and has a poor record of actually changing teachers' practices (Strickland & Kamil, 2004) as it does not take into consideration the individual needs of the attending teachers or their existing knowledge base. In relation to literacy, Snow, Burns and Griffin (1998, p.331) state this approach has been inadequate in the past for a number of reasons 'including the lack of substantive and research-based content, the lack of systematic follow-up necessary for sustainability and the one-shot character' of the sessions.

In the last decade, the definition of professional development has evolved. Villegas-Reimers (2003, p.12) in a major review of the research literature on professional development contends that it is now considered to be 'a long-term process that includes regular opportunities and experiences planned systematically to promote growth and development in the profession'. As such it is seen as an essential element of the professionalisation of teachers and is expected to occur throughout an individual's career from undergraduate education to induction through to continuing professional development. A teacher's stage of career will dictate their particular needs and interests. Teachers are being encouraged to take responsibility to continue to deepen their knowledge base and practice through continuous engagement with the latest research in their field through a combination of formal and informal experiences. Snow, Burns and Griffin (1998, p.331) make the point that attendance at courses is of course important but that in-career development must be broader. They argue that for the teacher of literacy, 'ongoing support from colleagues and specialists as well as regular opportunities for self-examination and reflection are critical components of the career-long development of excellent teachers.' In the Eivers et al. study (ERC, 2004) referred to in chapter one, teachers here in Ireland, were asked about their in-career development experiences in relation to a list of literacy topics. Views were mixed, depending on the topic being rated but teachers generally rated courses as being only somewhat helpful, and often too theoretical with not enough practical advice given on how to apply the theory, particularly in disadvantaged settings. The LANDS study (DES, 2005b) has highlighted the need for schools to devise a plan for professional development but the DES to date has not put procedures in place for this to occur within the school context. This is in contrast to the approach taken in some countries.

In the USA, schools are required to have a professional development plan. In addition, teachers are accountable for planning in a systematic way for their individual professional requirements. This is taken seriously and time and money are available to support it, as in the following example, where in one school Wednesday afternoons were set aside for it: 'By contract, some of these afternoons are designated for teachers to work on their own professional goals, others are for district-wide curriculum alignment and the remaining are for site-based development...This time is built into teachers' existing contract' (Lauer & Matthews,

2007). This major shift in thinking about professional development has been referred to by some as a 'new image' of teacher learning, a 'new model' of teacher education, a 'revolution in education' and even a 'new paradigm' of professional development (Cochran-Smith & Lytle, 2001; Walling & Lewis, 2000; Villegas-Reimers, 2003). This climate of educational reform and investment in professional development has spawned an extensive research agenda designed to discover the features of effective professional development and to explore its impact on teachers and on students' achievement. These aspects are presented in the next section.

2.2 Characteristics of Effective Professional Development in the New Paradigm

Effective professional development shares what Garet et al. (2001) refer to as a combination of structural and core features. Structural features of professional development include the particular form of the professional development, its duration and the nature of the participation involved. Core features, on the other hand, relate to the opportunities for active learning, content focus and the degree of coherence the professional development has for those involved. Linked to these features is the notion that it should be context-specific and that no one model is applicable to every context, rather, as Guskey (1986) suggests, an 'optimal mix' is required. It should be based on constructivist principles with a clear focus on improving student achievement. Finally, it is seen as a process of change rather than an event in and of itself. These characteristics are elaborated in the following sections.

2.2.1 Location and context of the professional development

There has been a renewed interest in reform approaches to professional development which situate the development on-site and often within the regular school day (Darling-Hammond & McLaughlin, 1995). Embedding professional development within schools has been a key feature of the large-scale educational reform initiatives alluded to earlier. When whole schools engage in collective participation in professional development it brings many benefits. There are opportunities to focus in on the particular needs of the school in general and also on those of the individual

teachers relating it to the specific concerns, questions and goals articulated by the staff (Fullan, 1991; Strickland & Kamil, 2004). According to Darling-Hammond: 'the most effective professional development focuses on teaching and learning through an investigation of personal practice and local teaching context. Sustained discussion on these aspects is critical to success,' (Darling-Hammond, cited in Allington, 2002).

School-based professional development provides a forum for debate and as Kinnucan-Welsch (2006) and others suggest it can transform schools into professional, caring, and inquiring communities. Lipson et al. (2004), in a study of effective schools of literacy, suggest that 'critical characteristics of the schools and teachers (successful ones) appear to include a strong sense of professional community coupled with strong support for individual professional decision-making and a focus on problem-solving' (p.539). This approach sees professional development as a process of culture building and empowerment of teachers as professionals (Cochran–Smith & Lytle, 2001; McLaughlin & Zarrow, 2001). A number of studies have suggested that whole school professional development is more effective than that focused on individual teachers conducted off-site in isolation from the daily realities that teachers face in their classrooms (Kennedy, reviewed in Villegas-Reimers, 2003; Au, Raphael & Mooney, 2007; Cobb, 2005). Whole school development is seen as basing itself on an examination of system needs and provides a forum for all to be concentrated on goals that will improve the outcomes for all students while helping to ensure continuity and focus over a number of years until goals are met.

2.2.2 Collaboration with an external partner

Increasingly, the research literature reports partnerships between outside experts (often researchers and teacher educators from universities) and schools, as it is acknowledged that teachers cannot be expected to be experts in all aspects of 'school reform, subject matter standards or professional practice' (Stein et al., 1999, p.240). Little (1993) suggests that outside experts have a number of advantages; they bring the latest research findings to schools which can help illustrate what has worked in similar contexts and can help schools take an investigative stance toward improving

standards and practice. However, in a systematic review of the research on collaborative CPD that reported outcomes for both teachers and pupils, Cordingley et al. (2003, p.51) report that this was not 'a simple story of outsiders riding to the rescue of ignorant teachers'. The external specialist input was usually in combination with much collaborative internal team support, and the knowledge base of both was considered to be of equal value where each of the partners were acknowledged as bringing 'separate but complementary bodies of knowledge' (Ross et al., 1999). Some saw these partnerships between researchers and teachers as 'partners in advancing the knowledge base between teaching and learning...focusing on a common mission, connecting with other professionals, collaboratively reflecting about their practice...opens up greater possibilities for continuous improvement' (Park & Coble, 1997) and again the specific expertise and contribution of teachers to the process was very much valued. This view is also held by Loucks-Horsley et al. (2003, citing Smith 2001, Stigler & Hiebert, 1999) who suggest that 'there is a growing emphasis on professional development that engages teachers in examining practice with experts and colleagues to develop specialised knowledge of the profession'.

In some cases the 'outsiders' were the initial agents of change and played the leading role at the start with teachers then taking a more central role in driving the process and sharing the decision-making (Ross et al. 1999). Kirkwood (2001, p.52) also argued that, once teachers felt the benefits of the collaboration in terms of the enhanced motivation and success of their students, they were more comfortable taking ownership of the project and 'routinely adopted a research perspective on their classrooms.' A further benefit of collaborative projects was their impact on the feelings of self-efficacy reported by teachers; this was a finding in six of the studies in the Cordingley et al. (2003) review. Cordingley et al. (2003) define self-efficacy as the 'perceived ability of individuals to effect change; to be an agent for changing their own or others lives in some way'. Differences in self-efficacy were attributed to the different models of professional development utilised in the studies. The teachers who had experienced collaborative approaches involving classroom observation and feedback had stronger beliefs in themselves and their power to change things compared to those who had experienced observation in a supervisory or accountable capacity and had not received feedback. The latter were significantly less confident

in their feelings of self-efficacy (Da Costa, 1993, reviewed in Cordingley et al., 2003). Likewise, Kimmel et al. (1999, reviewed in Cordingley et al., 2003) reported that teachers' feelings of self-efficacy grew the more they experienced success in improving outcomes for their students. Ross et al. (1999) reported that teachers who engaged in professional development that involved them as teacher-researchers in partnership with exemplary teachers overcame their initial anxiety and developed strong feelings of self-efficacy. These findings are in line with Bandura's (1995) theory on the development of self-efficacy in individuals which he suggests can be achieved primarily through the provision of mastery and vicarious experiences. It is likely that in the studies outlined above that the experience of observing peers had helped teachers to envision themselves as doers of the innovation, thus providing the necessary vicarious experiences and that the collaborative elements building in success in improving outcomes for their pupils had created mastery experiences for them.

Collaboration in these studies often involved 'outsiders' regularly modelling new techniques and supporting teachers through ongoing coaching and mentoring support, thus embedding the professional development in the actual classrooms of teachers (Britt et al., 2001; Gersten et al., 1995, reviewed in Cordingley et al., 2003). In these studies, observations were highly structured and often involved video and audio taping to allow exploration of key issues such as how the instructional objectives related to the observed teaching, how the new methods actually impacted on the class, the usefulness of the classroom organisation such as whole class versus small group teaching, student motivation and participation in the lesson and the degree upon which it built on students' prior knowledge and extended it. Conversations were informal and focused on facilitating and supporting teacher change rather than on accountability only. Structures were also put in place to allow for extensive peer observation, support, collaboration and professional dialogue outside of the external input (Cordingley et al., 2003). Differentiation was also a feature as teachers could identify their own needs and goals and these were incorporated into the professional development, thus giving them a sense of ownership and the opportunity to build on their prior knowledge. Of course, as Cordingley et al. point out, this kind of professional development is demanding on teachers and it is vital that 'arrangements for creating a distinctive space where it is

safe to admit need' are put in place 'as there is often a period of pain and anxiety for teachers in risking new strategies and opening up their practice to observation' (p.62). Interestingly, Da Costa's study (1993) already mentioned above in relation to strength of self-efficacy reported by teachers, concluded that collaborative CPD without the observation was less effective than CPD that had it as an element. Specifically, the pupils of teachers who had participated in peer observation achieved at a higher level than the pupils of teachers who did not have this element. This corroborates the findings of an earlier study, Joyce & Showers, (1988), which also found that feedback based on direct observation of teachers in classrooms was an important element in sustaining learning.

In several studies, non-contact time was negotiated to enable teachers to work collaboratively to discuss issues raised in professional development sessions and observations giving teachers opportunities to 'get beneath the surface of issues' (Cordingley et al., 2003) and decide on how they might address challenges and support the complexity of teaching and learning in their classrooms. Finding this time to collaborate creates a major difficulty for professional developers and is cited as an impediment to change in many of the studies reviewed by Cordingley et al. (2003) and is expressed well by Kirkwood (2001) who states that the daily realities of professional life for teachers there is little time 'free of teaching, preparation, marking and administration to share their knowledge with each other and develop the curriculum'. If collaborative on-site professional development is to become a reality in Ireland then there will need to be a major policy shift to facilitate this kind of learning time in schools.

2.2.3 Fosters coherence

Another feature of effective professional development is the degree of coherence it provides for the participants in relation to their own and their students' needs, goals, and national curricula and standards. If the professional development does not align well with these areas it may well be ineffective. Some recent reform models e.g. Au, Raphael & Mooney (2007), which seek to improve literacy outcomes for children in high-poverty schools in the USA, have placed particular emphasis on aligning professional development in this way and have been successful in raising standards.

2.2.4 Duration of the professional development

Duration is another key element of professional development. There is not yet consensus within the research community on exactly how much time is optimal to yield results. One of the issues concerns the dimensions of the contact - whether it is on an intensive level or whether it is distributed over a longer time span. Kennedy's research on effective Science and Mathematics professional development (reviewed in Villegas-Reimers, 2003) revealed that total contact time with teachers was not an important predictor of effect on student achievement. She also found differential effects of time for the particular subject area: concentrated intensive contact was more beneficial for Mathematics and distributed time was more effective for Science. Garet et al. (2001), in a large-scale survey, found that professional development is likely to be most effective if it occurs over an extended period. In relation to literacy, the effective schools literature has reported a one-year duration (Taylor et al., 2002) to be effective. It is likely that duration will vary according to context and those schools with many years of low achievement may need follow-up support for a number of years (Au, Raphael & Mooney, 2007). In the Cordingley et al. (2005) review of studies of sustained collaborative continuing professional development, it emerged that there were benefits after one term but further extensions of time did not necessarily result in benefits. However, the report acknowledged that further exploration was necessary, particularly in relation to the scale of the goals of the professional development and the stage of development of the participants.

2.2.5 Grounded in the content of teaching

A number of studies have emerged suggesting that professional development should focus, in part, on the content knowledge required to teach one's subject or discipline well. Garet et al. (2001), in their review of this aspect of professional development, suggest that this focus varies along four dimensions: the emphasis put on content knowledge; emphasis put on curriculum materials and resources; emphasis put on the kinds of goals for learning for students e.g. basic or higher-order skills; and emphasis put on how students actually learn the particular content. Shulman (1987, p.8)) also refers to this knowledge base and suggests that it is the 'pedagogical content knowledge' that sets the specialist apart from the pedagogue. He elaborates further

suggesting that this knowledge is the 'blending of content and pedagogy into an understanding of how particular topics, problems or issues are organised, presented and adapted to the diverse interests and abilities of the learners and presented for instruction.' This approach is in effect ensuring that teachers acquire the specialised content, terminology and body of practices associated with their discipline or subject. It is widely acknowledged that the teaching of reading is complex (IRA, 2000) and requires a specialised knowledge of the content that needs to be taught to students and the specific strategies that facilitate the teaching of this content (see chapter four). Even acquiring expertise in these two domains is not enough as Shulman's comprehensive definition above illustrates; teachers also need to understand the role of motivation and engagement in learning and need to consider how to adapt their pedagogical content knowledge to their specific context and students and, as we shall see in chapter three, the most effective teachers are skilful in combining all of these features to ensure successful outcomes for their students.

Studies that have focused on general pedagogy such as lesson planning, grouping and classroom management have not been found to be related to gains in student achievement (Cohen & Hill, 1998, cited in Garet et al., 2001; Kennedy reviewed in Villegas-Reimers, 2003). Findings in the Garet et al., study (2001) revealed that a dual focus on content and teaching skills had a substantial effect on changing teachers' practices. However, professional development that focused on content alone was found to have negative associations with changes in teachers' practices. These findings confirm those of earlier studies and meta-analyses. In fact, Joyce & Showers (1988), found that programmes with this dual focus tended to triple the effect of professional development compared to those that focused on content alone. This may be because focusing on content alone without demonstrating how important this is for students to acquire and not situating it in innovative practices may not capture the imaginations of teachers and they may not engage emotionally with it (Corcoran, 1995, reviewed in Villegas-Reimers, 2003). How then may this pedagogical content knowledge be communicated to teachers in a way that a lasting shift in their beliefs, thinking, attitudes and practices will occur? The research suggests that when professional development is based on social-constructivist theories such as those espoused by Bruner and Vygotsky that it can lead teachers to 'rethink and discard or transform thinking and beliefs' (Loucks-Horsley et al., 2003).

2.2.6 Based on constructivist principles

Social-constructivists' views of learning see it not as an event but as a process whereby the learner constructs new knowledge based on their prior experiences and knowledge base. In this scenario, learning is a highly personal and individual experience for each person. Active learning is considered to be a vital element of the process. Just as children learn by actively engaging in activities within their 'zone of proximal development' (Vygotsky, 1978), so too teachers must be treated as active learners (McLaughlin & Zarrow, 2001). If teachers have come through a transmission model of education where rote memorisation of facts was the norm, they may have trouble adapting to teaching in ways that are quite different in philosophy and methodology. As Loucks-Horsley et al. (2003) observe:

> It is surprising to note how often the principle of constructivism is conveyed to teachers in the context of how their students should learn, without its being the basis for how they learn themselves (e.g. there are still too many lectures on constructivism). Experiencing learning in ways that hold to constructivist principles is the only way for teachers to understand deeply why it is important for their students to learn in this way and for them to break their old models of teaching. (p.49)

This in effect means that the professional development offered must provide opportunities for teachers to actively engage with key content and pedagogical strategies (Shulman, 1987) in ways that will lead to a deep understanding of these processes. Thompson and Zeuli (1999, p.342) suggest that real change involves 'transformational' learning which leads to 'changes in deeply held beliefs, knowledge and habits of practice.'

Firstly, in order for this to occur a high level of 'cognitive dissonance' must be created which will make teachers question their current beliefs and practices in the light of new information presented in professional development sessions. One way to achieve this is through the provision of professional readings which present alternative ways of working, and also through providing opportunities to observe exemplary practice in the subject area or field. This can be a powerful motivator for teachers and can help them to envision how the strategy or approach may work in their own particular context. Lauer and Matthews (2007) in describing a professional development initiative to improve literacy achievement in their disadvantaged school

illustrate how four teachers after analysing student achievement data came to the conclusion that they needed to change how they were teaching comprehension. Teachers established goals for themselves and set about reading and critiquing key professional reading material in relation to the theory and practice of comprehension. They also organised visits to a local laboratory school that had been recognised as having exemplary practice which had a dramatic impact on them:

> Teachers were catapulted from awareness to impact by seeing another teacher using the strategies in a real classroom. The visits became the bridge for staff from what they saw on a page in a book to seeing what was possible in their work with students....After a year of visiting lab classrooms, student achievement in those four classrooms rose dramatically. Teachers saw that reflecting on their own practice and the opportunity to learn from other teachers were critical catalysts for change. (p. 40)

Secondly, significant time must be provided for teachers to debate issues related to this dissonance and structures put in place to support them as they read further, discuss and endeavour to make sense of these experiences. As Shulman (1987, p.13) argues, 'teachers must use their knowledge base to provide the grounds for choices and actions.'

Thirdly, the activities designed to produce the cognitive dissonance should be embedded in the daily complexities of teaching and learning in teachers' classrooms and strategies such as videotaping and audio-taping should be used to help shape teachers' reflections on these new experiences as they experiment with new approaches and reflect on how they are impacting on student achievement. Kinnucan-Welsch (2006) argues that it is not enough for teachers to be merely active in professional development sessions. She makes the case that the activities must be inquiry based and linked to teachers' personal investigations into their own practice and ongoing analysis of their teaching in relation to meeting the needs of all learners in the classroom and improving achievement outcomes for them: 'Through this process the teacher makes successive shifts in teaching based on analysis of what the students need to know, what instruction will support the students in developing that knowledge or skill and what the students learned through instruction' (p.429). It is only as teachers engage in active learning that they come to transform new knowledge and own it. Cambourne (2002, p.31) suggests that 'the process of making

something one's own involves potential learners transforming the meanings and skills that someone else has demonstrated into a set of meanings and skills that is uniquely theirs.' Shulman (1987) concurs and suggests that this is further enhanced and refined as teachers use their new understandings to teach in new ways. He suggests that it is as one evaluates one's teaching and reflects on it that new knowledge is consolidated and understanding deepened.

In addition, teachers should have the opportunity to be observed and receive feedback as they experiment with new approaches. This requires a collaborative approach to teaching and learning and is dependent on a culture of collegiality, genuine inquiry and a trusting nurturing environment where risks are taken and seen as evidence of learning (Cambourne, 2002; Cordingley et al., 2003). Furthermore, as outlined earlier, it is essential that the observation is conducted in a manner that is non-supervisory if it is to result in teacher self-efficacy (Da Costa, reviewed in Cordingley et al., 2003). In the Lauer and Matthews (2007) example referred to above the four teachers who had visited the laboratory school began to organise lab visits in their own school and asked colleagues to observe. Prior to the visit, the hosting teacher would issue her research question for the lesson e.g.' does my think-aloud get students to activate their background knowledge to comprehend what they are reading independently in Science?' In a pre-briefing session teachers would discuss the question and their interest in it, followed by the observation and a de-briefing session which also included planning ways whereby the new learning could be integrated into their own classrooms. As the authors observe:

> The internal lab project was designed not to hold up individual teachers as models for other staff, but to enrich professional learning for both the lab host and the lab visitors by creating a forum in which teachers were empowered by their own inquiry. The labs helped teachers reflect on their instruction and added richness to their instructional dialogues. (p.40-41)

This kind of active learning can therefore involve opportunities for teachers to lead discussions with peers, make presentations, lead change with peers and write articles and papers, thus developing the kinds of teacher leadership skills referred to by Lieberman (2001).

Lastly, teachers need to be involved in a cycle of continuous improvement by identifying new issues that arise, engaging actively to understand them, deciding how to act to address the challenges, reflecting on the effectiveness of the solution and going through the whole process again as a new problem presents itself. In this way, new learning becomes embedded in teacher practice rather than being just added on to their knowledge base and it helps to transform thinking as well as practice. This kind of professional development is empowering for teachers and helps them become more metacognitively aware as they interrogate their practice and question what they are doing, why they are doing it, how they are doing it and what effect it will have on their students (Kinnucan-Welsch, 2006). By reflecting on their own metacognitive processes it helps also them understand better the learning processes they are trying to help children acquire through their modelling and demonstrations.

2.2.7 Focused on improved achievement of students

Collaborative forms of continuing professional development often link student assessment data to the design of the professional development, as in the examples given above. The drive to link professional development with improved student achievement has come late in the reform movement according to Strickland and Kamil (2004). They report on the findings of the Report of the National Reading Panel (2000) which concludes that the use of professional development as a solution to literacy problems is as yet largely untested. This finding is corroborated by the Cordingley et al. review (2003) referred to above. Cordingley et al. (2003) indicate that few studies report both on professional development processes *and* their impact on students' achievement, meaning that only tentative conclusions could be reached as to whether collaborative professional development 'works' to improve attainment. In addition, the majority of the studies that met the criteria for inclusion in the review were focused on Science, Mathematics and ICT rather than a broad range of curriculum subjects so it is unclear if the findings would transfer across all subjects. The authors of the review felt that associations could be made between the professional development provided and a resultant increase in student attainment but cause and effect could not be directly established. Yet, there is some support in the research base for this link. In the Villegas-Reimers review of professional

development, also in 2003, several studies are cited as providing strong evidence of improved student attainment as a result of changes in teacher practices following professional development (e.g. Borko & Putnam, 1995; Cohen & Hill, 1997; Supovitz & Turner, 2000). A review of district policy in San Diego (The Report of the National Commission on Teaching and America's Future, 1996), found that the more professional knowledge a teacher had, the higher the levels of attainment of his/her students. While a lot remains to be done to establish a cause and effect between professional development and student attainment, it must be agreed that in the current era of reform movements and pressure to close the achievement gap between children of race and low socio-economic backgrounds and their more advantaged peers, the time and conditions are ripe for investigations to study how professional development in literacy can make a significant contribution to enhancing student performance and that this approach shows promise.

Apart from improved achievement outcomes, the research has documented additional benefits for students arising from high-quality professional development for teachers. Cordingley et al. (2003) in their systematic review of collaborative professional development found that teacher professional development benefited students in a myriad of unanticipated ways. For example, studies reported greater motivation and engagement, enhanced satisfaction with their work, increased confidence, more active participation in class and changes in attitudes to particular subjects. This has also been documented in the field of literacy. Studies have found that teachers have a strong influence on children's motivation to read (Ruddell, 1995, Skinner & Belmont, 1993 cited in IRA 2000). The collaborative nature of the professional development for the teachers spilled over into the classroom and there was some evidence from the studies that children were also encouraged to work collaboratively, resulting in students taking a more active role questioning each other and evaluating each others' work. These extra outcomes are also important elements of the change process and help children sustain persistence in areas where they have difficulty. The contribution of such outcomes to improved achievement should not be under-estimated. Many professional developers are now using student assessment data as the starting point for establishing professional development needs (Villegas-Reimers 2003; Kinnucan-Welsch, 2006; Au, Raphael and Mooney, 2007; Guskey, 2003) and this is illustrated in the sections that follow.

2.2.8 Professional development as a process of change

The change literature (Guskey, 2000; Fullan, 1991) frequently suggests that real change takes a long period of time and that commitment to change must be sustained over many years, typically five-eight in order for changes to take a firm hold. Research evidence also shows that high-quality professional development impacts positively on teachers' beliefs, attitudes and practices but that this does not occur in a linear fashion but rather in a dialectical manner 'moving back and forth between change in beliefs and change in classroom practice' (Cobb, Wood, & Yackel, 1990, reviewed in Villegas-Reimers, 2003).

Hall and Hord (1987) in their Concerns-Based Adoption Model (CBAM): A Model for Change in Individuals, have conceptualised the change process as a series of stages that teachers pass through as they engage with the process of change and, depending on which stage they are at, varied levels and kinds of support will be required. In the initial stages, teachers' questions are more 'self-oriented' i.e. they are concerned as to how the proposed changes will affect them personally. Loucks-Horsley (2003) suggests that these early concerns can take at least three years to be resolved, which seems an excessive length of time to be at this level. From there, concerns become more 'task-oriented' and teachers focus on management and organisational issues so things run more efficiently and smoothly. Each new topic brings new demands on teachers and they need continued support as they experiment and work out the difficulties. Next, they move toward 'impact-oriented queries' where they focus more on the students and less on themselves and consider if the changes are working well for them, and if there are any adaptations that would make the innovation work better in the context. Finally, even when the changes have become routine for the teachers, they need continued support to focus on student learning and to maintain the changes made.

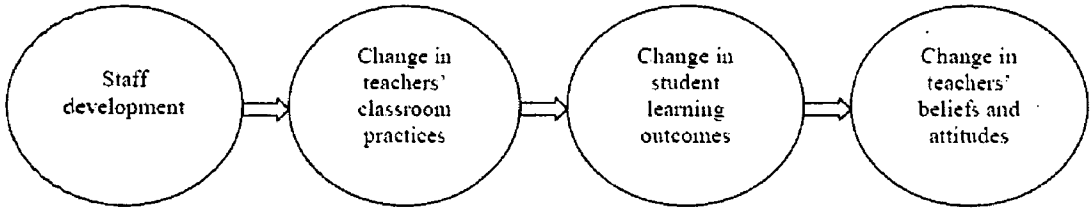


Figure 2.1 A Model of the Process of Change: Guskey, 1986

Guskey (1986) likewise argues that trying to change teachers' beliefs and attitudes at the outset is doomed to failure. According to Guskey's model of change (see Figure 2.1), significant changes in teachers' beliefs and attitudes occur only *after* positive changes in student learning outcomes are apparent. He argues that teachers care very much about their students, are highly committed to their learning and are reluctant to try new ideas and methods unless they are sure they will work. To change is to risk lower achievement by students and professional embarrassment if the change does not succeed. Guskey explains that his model is 'predicated on the idea that change is a learning process for teachers that is developmental and experientially based' (1986, p.7). He suggests therefore that a key feature of any professional development must be to build in early success for teachers where they can see a demonstrable positive effect on their students as a result of the changes they have made to their practice.

He presents evidence in support of his model by citing reform efforts which began by trying to change teacher attitudes and beliefs and by getting them to commit to a vision for change at the outset. Huberman (1981), in a case study documenting the implementation of an innovative reading programme, noted that 'concern for understanding the structure and rationale of the programme grew as behavioural mastery over its parts was achieved' (p.91), indicating that changes in beliefs and attitudes generally follow changes in practice. Bolster's study (1983) offers further support as he found that new practices in teaching are adopted by teachers and believed to be true only 'when they give rise to actions that work' (p.298). He argued strongly that without verification from the classroom it was unlikely that teachers would change their beliefs and attitudes. Guskey concludes that reform programmes that are radically different from teachers' current practices need to be implemented incrementally without too much interference or a heavy workload for teachers, building success each step of the way. Thus, it would seem that these are important considerations for professional developers when planning for change.

2.3 General Models of Professional Development

Guskey (2000) and Loucks-Horsley et al. (2003) have designed professional development models. These two models will be compared and contrasted in this

section. Guskey's model has five hierarchical levels, each one while individual in its own right builds on the level before it. This model was influenced by the work of Donald Kirkpatrick whose four-level model for evaluating training programs in the business world was published in 1975. Guskey's model builds on this work applying the principles to educational settings and adds a fifth level between levels two and four. Depending on one's purpose, one can begin at level five or at level one. Those seeking to evaluate the effects of professional development typically begin at level one and those planning professional development to improve achievement outcomes in educational settings can begin at level five. This level focuses on student attainment and provides a framework for deciding priorities and direction for the professional development and change process. This in turn focuses attention on the students from the outset and helps shape the goals that teachers have for themselves and the students. The Loucks-Horsley et al. (Figure 2.2) model, is a graphic representation of the change process and comprises six stages, influenced at different points by various considerations such as the philosophy underpinning the process, the particular context for the professional development, the critical issues to consider while setting goals and the kinds of professional development strategies to select to carry out the goals. While the model was designed primarily for Science and Mathematics professional developers, according to Loucks-Horsley et al. (2003) it has been used widely by those involved in other disciplines to design professional development initiatives.

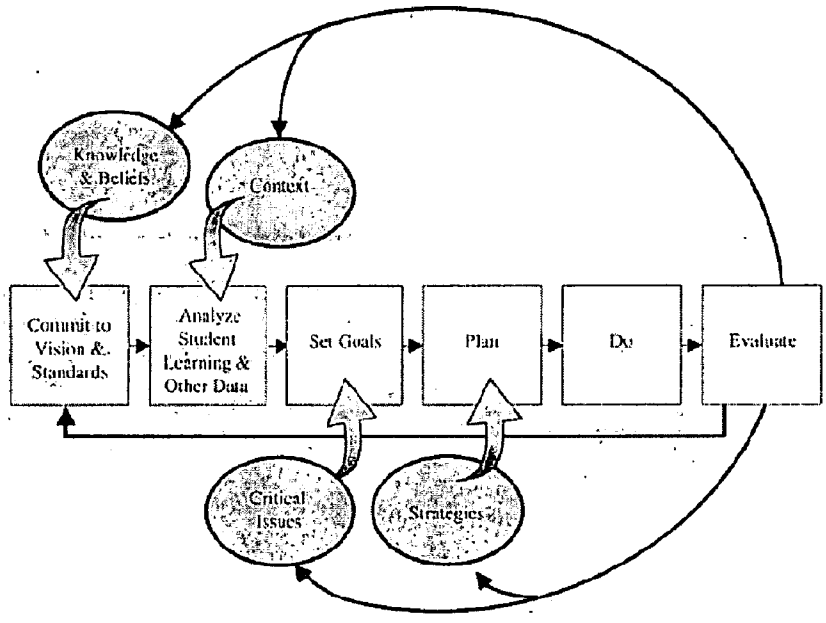


Figure 2.2 Design framework for professional development in Science and Mathematics (Loucks-Horsley, 2003)

The main difference between the two is in the starting points. In the Loucks-Horsley et al. model the change process begins by having the teachers create a vision statement aligned to high standards. Guskey, in line with the argument presented above advises beginning with an analysis of student data, as he firmly believes that changes in teachers' beliefs and attitudes and commitment to change come *after* they have had success in implementing a new strategy and seen rapid results for their students. This may particularly be true if the context is an urban school with sustained low achievement over many years. Teachers in this example may have trouble believing that they can be successful with these students and may also have lower expectations for their students (Guskey, 1986). This is a major hurdle for professional developers and it could hamper the construction of the initial vision statement.

Guskey suggests gathering data on three dimensions of learning: cognitive, affective and psychomotor skills. This he says 'compels educators to plan not in terms of what they are going to do but in terms of what they want to accomplish with their students' (p.12, 2005/2006). Data sources should include standardised test results, portfolios containing samples of students' classroom work, attendance

records and school records showing trends over time. Structured interviews should also be conducted with children to gain insights into their attitudes, motivation and engagement and interviews should also be considered with parents to establish the nature and extent of parental involvement. In collaboration with the school and teachers, the data should be examined and analysed thoroughly to create a picture of current strengths and weaknesses and to set priorities for the future. These data can then serve as a baseline for evaluating the success of the professional development in terms of changes in the cognitive, affective and psychomotor domains. Outcomes can in turn be used to improve or change the direction of the professional development or maintain the current focus. Loucks-Horsley et al. suggest particular features of the context should also be analysed carefully e.g. the teachers' beliefs and practices, the curriculum being taught, the assessment strategies in place, the organisation and culture of the school, policies at local and national level, resources available, the involvement of the parents and community, and the school's previous experiences of professional development which they argue have major implications for the shape of the professional development. Obviously, it would be critical that any such analysis would be done in collaboration with all concerned.

Next, both agree that targets should be set. Guskey suggests that having decided on the targets for improving children's achievement, teachers decide what new knowledge and skills they need to develop in order to effect change in instruction. Loucks-Horsley et al. recommend setting goals on four levels: goals for student learning, goals for teacher learning, goals for teaching practice and goals for the organisation. The authors suggest that it is also important to consider the impact of a number of 'critical issues' at this stage as these issues tend to be universal and must be addressed early in the design process. These include reflecting on each of the following: finding the time for the professional development - a barrier cited in many studies (Cordingley et al., 2003); ensuring equity of access to the professional development; building a professional culture in the school; considering how to build leadership skills in the school; considering how the initiative is to be sustained by building capacity early on in the process; looking at how the initiative might be scaled up; and canvassing public support for it. Some of these issues are similar to Guskey's stage three (organisational support and advocacy for the change process) and have to be resolved at an organisational rather than individual level. This is a

critical level in Guskey's model and is the one he added to Kirkpatrick's earlier four-level model. Guskey added this level as it became clear in the four-level model that, even if the professional development was done well, often there were not positive results as the necessary supports within the organisation had not been put in place when educators returned to their school. This is of course less likely to occur when professional development is provided on-site and all stakeholders are involved in the design of the change process. Mechanisms also need to be put in place so the relevant resources and materials are provided quickly and efficiently at the outset.

A comprehensive professional development approach should be put in place to target these needs including all of the elements of high-quality professional development outlined in earlier sections of this chapter. Loucks-Horsley et al. outline 18 options for professional learning (p.12, 2003) and suggest that different strategies can be utilised at different phases of the implementation process and that some will be more appropriate at particular stages in the process and some may be better suited to particular contexts than others.

Stage five in the Loucks-Horsley et al. model is the implementation phase and the authors acknowledge that it is at this stage that most support is needed as teachers try out new approaches and go through developmental stages in the change process. Inevitably, teachers experience the 'implementation dip' (Fullan, 1991) as rarely do teachers move from professional development to smooth implementation in the classroom. This featured in many of the studies contained in the Cordingley et al. review (2003) of the research on collaborative professional development. Therefore, having a range of supports in place to help teachers 'tolerate the anxiety of occasional failures and persist in their implementation efforts' (Cogan, 1975, cited in Guskey 1986, p.10) is a critical issue and may make the difference to sustainability. Supports such as those already outlined in characteristics of professional development above are highly desirable and necessary. Again, these can serve to focus attention on areas in need of further support or can present new areas for future examination.

Finally, stage six (Loucks-Horsley et al.) involves evaluation of all goals set at stage three for teachers, students and the organisation. Again, like Guskey's stage 5 outlined earlier, the baseline data collected at the outset on the context and student

achievement should be re-examined and compared with the new assessments. Similar to Guskey, the authors also advocate obtaining these data from a wide range of sources: test results, observations, interviews, and portfolios, all of which should inform the setting of new goals and a new cycle of professional development. Guskey's level one also provides for feedback to the developer on the participants' reactions to the professional development. Here key considerations include the degree to which participants felt the material was coherent, made sense, and connected with their needs and goals, and whether the time devoted to the endeavour was time well spent.

2.4 Specific Professional Development in Relation to Literacy

As outlined earlier in the section, in many countries in recent years, there has been a spotlight on literacy and schools are being held accountable for higher achievement, particularly those in high-poverty areas where there is a persistent gap between children living in these communities and their more advantaged peers. In an attempt to close this gap, some researchers have chosen to combine the research on professional development outlined in the section above with the knowledge base on best practice in literacy instruction and to provide professional development to schools that reflects the best features of both. While space does not permit discussion of all of these studies, a number of them are summarised briefly below while details of others are now available on the Internet e.g. www.literacyspecialist.org (Kinnucan-Welsch, 2006); CIERA School Change framework: www.ciera.org. They are included, as they have linked the professional development to improved literacy outcomes for children, a key focus of this thesis.

2.4.1 Chicago Reading Initiative

The Chicago Reading Initiative (CRI, 2001) was a project introduced by Dr. Timothy Shanahan in one low-income school in the inner city in Chicago in an effort to raise achievement and it subsequently spread to more than two hundred schools. Shanahan's model is one of the earlier models. It is based on a synthesis of the research on the essential skills for literacy, many of which are outlined in the

National Research Panel report (2000) (see chapter four). His balanced literacy framework includes 30 minutes instruction in each of the following interrelated components: word knowledge, fluency, comprehension and writing. Children must have a minimum of two hours reading and writing instruction daily or three when greater acceleration is required. Schools that opt to buy into the model are provided with professional development on-site. Teachers receive training in each of the four components specific to their individual needs. They are not required to follow a particular method or use specific materials but they must adhere to the research-based guidelines given and devote their instructional time to quality instruction and activities. Teachers are also closely supervised by personnel 'trained in learner-centred observation and supervision that allows them to determine instructional effectiveness and degree of continuity' (Shanahan, 2001). Observation frameworks were designed as rubrics and were piloted across twenty schools involving a number of different observers and continue to be updated in the light of feedback. They rate teachers on a 3-point scale:

> 1= Low quality or uneven implementation. Need for intensive practice and support.
> 2= Acceptable level but would benefit from additional practice and support.
> 3= High quality implementation. Could serve as a model for others. (2002, p.1)

A detailed guide was also developed to accompany the observation rubric to ensure quality instruction in each component and to help focus the observation on critical teaching behaviours in each of the four components. They also provided a useful summary of key teaching in each essential skill. Shanahan maintains that one of the 'most powerful influences on teaching is careful observation. Whether a lesson is observed and analyzed carefully by a principal, or a colleague, or even by the teacher him/herself, there is a great opportunity to learn and improve,' (Shanahan, 2002, p.4). Shanahan thus envisaged that the guide could be used as a teaching tool, an assessment tool or as a tool for teachers to reflect on their own teaching. Shanahan is careful to point out that if the guide is being used as an accountability exercise then judgements should be made over several observations as one is just a snapshot of practice and perhaps not illustrative of everyday practice. The CRI guide consists of 6 schedules (consisting of one page for each aspect of the literacy programme) for observing literacy lessons. The first is the general overview which addresses general issues in relation to instruction that are important aspects of all lessons regardless of

their specific focus such as the amount of time for literacy in a day, the literacy environment and the features of quality instruction. The second examines word knowledge, such as sight vocabulary, phonics and vocabulary. The third and fourth address fluency and comprehension and note the importance of metacogniton, teacher modelling, coaching and feedback and the importance of strategy instruction. The fifth addresses writing as a process in a range of genres and for particular purposes and audiences while the sixth provides for an overall rating based on the previous five. While the framework has raised literacy scores of children in disadvantaged schools, very little appears to have been published documenting the precise nature of the professional development. Given the views expressed earlier, it would be essential that the observations be conducted in a non-evaluative manner that would contribute to enhanced teacher confidence.

2.4.2 Teachers College Reading and Writing Project

Lucy McCormick Calkins is the founder and director of the Teachers' College, Columbia University, Reading and Writing Project which is essentially a 'think-tank' on literacy and a staff development provider. The model (Calkins, 2001) has evolved from more than twenty years of research on the teaching of reading and writing through collaborative relationships with schools. So successful is the Calkins model that in 2003 it was adopted by the New York City School Board and mandated for all city schools. The model therefore was not developed specifically to raise achievement scores of children in disadvantaged schools but rather to help teachers develop effective and quality literacy instruction for all children. In the Calkins model, the essential literacy skills outlined above, are embedded in rich literacy contexts in a balanced literacy framework and brought to life in reading and writing workshops. The model has captured the imagination of New York City's teachers. Her commitment to sustained systemic change is evident from the unique professional development model she has devised. Calkins will only work with schools that commit to on-going on-site professional development. A Project staff developer is assigned to each of the schools that commit to the framework to help teachers and principal 'establish rigorous reading and writing workshops in the 'messy, human, complex world' of schools (Project website). The staff developers

lead the workshops in classrooms during the day, modelling for the teachers e.g. how to teach various aspects of literacy or how to use assessment to guide teaching. Usually one teacher in a given grade level will offer his/her classroom as a 'lab site' for the demonstration which all teachers in the grade level also observe. Teachers then commit to continuing this work independently until the staff developer returns the following week.

Teachers in grade levels also form study groups and collaborate on teaching and planning. Principals are included in the process and attend monthly conferences and study groups. Schools are invited to nominate a teacher to be a literacy coach who then attends an intensive course one day a week. This teacher becomes a support or coach to other teachers in the school. In addition to site-based customised professional development, the Reading and Writing Project also provides several summer institutes and mini-institutes throughout the year. Teachers may attend these courses for credit and build toward a Masters degree. In 2004, an enlightened New York City School Board paid teachers to attend the mini-institute which took place over the spring break providing an added incentive to teachers to attend. The on-going customised support for schools is a critical element of the success of this NYC model.

2.4.3 Partnership Read/High Rise

This developmental model originated in Hawaii in 1996 (Au) and was tested there for five years before expanding to high-poverty schools in the Chicago area (Raphael, 2003, see Au, Raphael & Mooney, 2007). Researchers are continuing to investigate and improve the seven-level model and contend that it is based on a social-constructivist (Vygotskian) model of learning for both teachers and children (Au, Raphael & Mooney, 2007). The model is based on a collaboration between schools and local universities which provide support to the school in the change process. It is guided by a commitment to a number of principles. The first is that the professional development caters for the school's needs and enables them to find solutions to their own particular problems rather than imposing a programme and requiring fidelity to it. Secondly, teachers of the school will own the change process from the beginning and thirdly, will focus on existing strengths and work to correct

weaknesses. Finally, there will be a gradual release of responsibility with less need of help from outsiders as the change is implemented. These principles are important in the American context where there are often mandates from school districts prescribing what schools can and cannot do. This model is heavily focused on standards and assessment but is interesting in the extent of the building blocks that are put in place to help schools move through the change process incrementally. The authors note that changes in students' achievement did not usually occur until schools were at level 6 of the change process (Hawaii) while some in Chicago saw gains at level 5.

Table 2.1 Seven Level Developmental Model of Change (Au, Raphael & Mooney, 2007)

Level	Description of level	Professional development support
1	An individual in the school recognises that a change is needed.	
2	Establishing infrastructure for success: timetabling issues, establishing an internal literacy co-ordinator	
3	Establishing a vision of excellent readers and writers	*Course 1:* Build teachers' knowledge of content, practices and assessment. Establish grade level benchmarks and assessment rubrics designed to monitor progress and align to state standards.
4	Establishing a whole school professional learning community. Within and across grade level groupings established	
5	Gathering assessment data and sharing data at beginning, mid and end of year within and across grade levels	*Course 2:* Use the assessment rubrics to analyse student needs and to ensure coherence across grade levels
6	Teachers collaborate on developing detailed guides for each grade level and fit into the 'staircase' eliminating overlap and considering if key skills are being missed.	*Course 3:* Create a staircase curriculum: curriculum guides for each grade level based on research based best practice and to bring coherence to the whole school plan
7	Teaching children to self-assess and including the parents in three-way conferences with teacher and student.	*Course 4:* Emphasis on portfolio assessment and involving families in literacy

The authors argue that the focus on designing the curriculum and the emphasis on assessment throughout helps schools to engage in reflection as they examine their practice and the coherence of their programme. There is also an emphasis on continuous curriculum renewal as the guides are updated annually. The researchers suggest that it takes about four years for schools to work through the change process and each of the courses is designed to last over the course of a year. Another

interesting feature is that the courses build on one another and a new one is not introduced until the tasks for the previous one have been accomplished. Teachers are released for the equivalent of eight days to allow them to engage in the collaborative work. There is also a fellowship programme which teachers can opt to take and they receive credit for their school-based work as they work toward a higher qualification. In addition, the public-school system provides funds towards each teacher's fees. This would seem to be a highly innovative and worthwhile approach to school change which builds teacher knowledge and sustains support over time. It differs from the two already outlined as it does not include classroom modelling, demonstrations or observations; rather it concentrates on building a quality curriculum and assessment system school wide. Neither does it offer support to schools until the organisational supports are in place. Like the Calkins model, it offers teachers the opportunity to work towards an advanced qualification in literacy which would seem to be an attractive option for teachers.

2.4.4 Reading specialists/subject co-ordinator

Some schools are looking inwards for professional development rather than committing to partnerships with external partners. Many schools in the United States employ reading specialists using Title 1 funds (the term given to compensatory education programmes funded by the federal government) who have a more specific expertise in literacy than the classroom teachers. Traditionally, their role has been to provide instruction for struggling readers by withdrawing students from the classroom. In addition, they can provide support and advice for teachers. Under the No Child Left Behind Act (US, 2001), there is a new focus on high-quality instruction in the primary grades. It has been suggested that in high-poverty schools that these teachers' roles should be expanded to include that of a reading coach (Dole, 2004). Dole argues that reading specialists are ideally situated to respond to these needs within the system. They are more knowledgeable about the reading process and have a greater repertoire of teaching strategies and that it makes sense to employ them in this way. This is a new role for specialists and they may need some support to enable them to go in to classrooms and to demonstrate and model lessons for teachers and to observe teachers teach and give feedback to them on their

teaching. This kind of peer help has been shown to be effective in helping teachers become more reflective in their daily practice. It would seem to be a worthwhile avenue for schools to pursue while focusing on improving literacy achievement for their students.

In the UK, schools have subject co-ordinators who have responsibility for particular subjects. These teachers are perceived as being experts in their field by their colleagues and are given that status within the school. They are given more extensive in-service training courses in literacy. They also have the opportunity to observe other teachers teach literacy and act as guides and mentors for them. In many cases, they design in-service courses for their colleagues which affords them the opportunity to consolidate their own knowledge base as they consider how best to communicate new knowledge and strategies to their peers. In a large-scale study on expert teachers of literacy in the UK (Wray et al., 2002), many of the exemplary teachers were the subject co-ordinators of their school. This led Wray et al. to recommend this as a rotating post within schools as it had the capacity to help teachers build their expertise in literacy. In Ireland, learning support teachers who also have extra expertise in literacy have not had roles such as these but it may be worth considering in the case of high-poverty schools where there are large numbers of under-achieving children.

3 EFFECTIVE SCHOOLS AND EFFECTIVE TEACHERS OF LITERACY

The difference in achievement between children living in poverty and their more advantaged peers has been documented in chapter one. For decades, researchers have been attempting to discover how schools may be helped to narrow the gap and ultimately close it. One important source of data is the effective schools in reading literature which strives to identify schools that beat the odds and attain higher than average levels of academic achievement, given the socio-economic status of the children attending the school .Effective schools research seeks to provide an understanding of school level and classroom level factors contributing to success in literacy. Hoffman (1991) reviewed the early research on effective schools which took place in the 70s and 80s using a process-product paradigm and noted eight common characteristics: maximum use of instructional time; frequent monitoring of students' progress; a clear school mission; effective instructional leadership and practices; high expectations; a safe, orderly, and positive environment; ongoing curriculum improvement; and positive home-school relationships. There was renewed interest in this line of inquiry in the 1990s as new, more process-based methodologies emerged, and several large-scale studies were commissioned in the United States to further investigate how these outlier schools were succeeding, with a view to informing future policy. Nevertheless, the findings of these studies resonate with those identified in Hoffman's review. Alongside these school studies, there was a parallel line of research which sought to identify exemplary teachers of literacy, and to document their instructional practices in order to disseminate these practices more widely to improve the quality of literacy teaching. A synthesis of the most frequently cited studies in the literature on both effective schools and teachers is presented in the following sections.

3.1 Effective Schools in Reading

3.1.1 Purposes of the studies

This section looks at six studies of effective schools of literacy. The Puma et al. study began in 1991 and issued initial and interim reports before issuing final conclusions in 1997. Puma et al. were charged with determining the effectiveness of the Chapter One programme (the federal government's funding of support services for at-risk children) or Title One as it was re-named in 1994, in closing the gap between children living in poverty and their more advantaged peers. The second and third studies sought to illuminate the attributes and practices of effective schools in particular states: Texas (Lein et al., 1997) and Chicago (Designs for Change, 1998). The fourth, Hope for Urban Education (Charles A. Dana Centre, 1999) sought not only to document the characteristics of effective schools across the USA but also to capture the processes that these schools had engaged in to transform themselves into highly effective schools (Johnson et al., 1999). The fifth study went beyond the other studies and investigated the instructional practices used by accomplished teachers as well as the school-wide practices which characterised the most successful schools (Taylor et al., 1999) and this became known as the CIERA study, after the organisation (Centre for the Improvement of Early Reading Achievement) which conducted the study. The sixth study, spanning a number of years, focused on the experiences and attributes of effective but small rural highly-disadvantaged schools and classrooms in Vermont and is documented in reports published in the early part of this century (Mosenthal et al. 2002; Lipson et al., 2004).

3.1.2 The samples chosen for investigation

Across all the studies, the level of poverty of the participating schools is clearly outlined and ranges from moderate to high (see Table 3.1). The percentage of children in the school qualifying for free or reduced price lunch was the most frequent marker used in defining the poverty index of the school. This is a critical piece of information as the level of poverty in a school has been associated with the educational achievement of the children, with students in high poverty (more

disadvantaged) schools typically doing less well to counterparts in low poverty (less disadvantaged) schools. Puma et al. (1997) contend that this places students in a 'double jeopardy' as high concentrations of poverty at school level (e.g. in schools where more than 75% the students are eligible for reduced price lunch) and individual student poverty level severely depresses scores. This has also been found to be the case in Ireland (Cosgrove et al., 2000; Weir, 2003; Eivers et al., 2004). Therefore, it is all the more remarkable when schools such as these succeed in 'beating the odds'. As can be seen from Table 3.1 the Puma study had the largest sample. It tracked 40,000 children in grades one, three and seven who had participated in Chapter One services and compared their achievement with that of children who had not participated. The achievement of the same children was tracked over three years, in each of the years 1991-1994. Thus the First grade cohort was followed from First grade to the end of Third grade. Statistical analyses identified a small number of schools as performing more highly than other schools serving similar populations and were selected for further investigation.

The approach taken in the Vermont studies is interesting in that the researchers first examined the achievement data for all schools in the state and they then grouped them into three clusters to represent the varied demographics in the state: (a) 'Country Schools' disadvantaged rural schools, the smallest in the state, located in isolated townships and populated by some of the poorest communities with high numbers of children eligible for free or reduced price lunch, (b) "Main Street", schools that were larger and had greater resources, (c) "Uptown Schools" the largest schools located in the wealthiest communities. From these three clusters, high and low-performing schools were identified (see Table 3.1).

Table 3.1 Characteristics of samples across studies

Name of study	Sample size	Poverty index: % free lunch	Definition for inclusion in study
Prospects: Title Puma et al. 1997	365 schools: 5 considered high performing 40, 000 children	Range of poverty: large scale review	Above average growth slopes and achievement on standardised tests
Texas study Lein et al. 1997	26 schools; 5 used for case studies	All at least 60%, most 75%	70% had passed the TAAS
Chicago Designs for Change 1998	High poverty schools divided into 3 categories: according to growth slopes: high, medium, low 7 schools selected for case studies	> 75%	High poverty schools with substantially up growth slopes between 1990-1997 e.g. 23% chn. above the national average in 1990 to 37% 1997 to 45% in 2000
CIERA Taylor et al. 1999	14 schools: 11 high 3 typical	28%-92%	Reputation of school and engagement in reform efforts
Hope for Urban Education Johnson et al. 1999	9 schools nationwide	7/9 schools 80%	Above average achievement compared to all schools in the state or 50% above the national average
Vermont study Mosenthal, 2002 Lipson, 2004	All schools in state examined. 6% low SES; 8% middle SES; 14% high SES selected	Comparison of schools: high middle and low SES	80% reached standards in state tests

3.1.3 Defining effective schools

In each study, specific criteria were utilised to identify high-performing schools. Each school chosen to participate had to illustrate higher than expected gains in literacy achievement and in some cases also in mathematics achievement, as evidenced by performance on either a statewide assessment or a nationally standardised test. An exception was the CIERA study, where a combination of district achievement tests and achievement measures on a range of literacy tasks administered during the study were used. In the Texas study, at least 70% of the students had passed the TAAS (Texas Assessment of Academic Skills) which the authors contend represented above-average achievement levels, as few schools in Texas had reached this level of achievement at the time the data for this study was collected (1995). In Chicago, growth slopes of all high-poverty schools were tracked over a seven-year period. Seven schools with consistently improving growth slopes

(see Table 3.1) were selected for in-depth study. The CIERA researchers initially selected 11 schools which were *reputed* to be more highly effective than others serving similar populations and three reputed to have more typical achievement, though it is not clearly outlined in the report how this sample of 11 was actually arrived at. The researchers were interested in schools that had beaten the odds and had also been engaged in various kinds of reform efforts (comprehensive school wide reforms such as Success for All, early intervention such as Reading Recovery, or home-grown models) for several years. After selection, a number of tests were administered and it emerged that despite the reputations of the 14, only four of the schools could in fact be deemed to be highly effective, with a further six classified as moderately effective and four to be least effective. A variety of methodologies were used to investigate the defining characteristics of these schools.

3.1.4 Methodologies used in the studies

A variety of methodologies were used in the six studies. These are summarised in Table 3.2. Some of the studies used qualitative methods only while others combined qualitative and quantitative approaches. Some used in-depth case studies to provide a rich picture of particular school contexts and to illustrate the interconnectedness of the patterns identified in the research. In the Designs for Change study, survey data collected in 1994, which was midway through the change process, allowed for an analysis to discover if 'substantially up' schools were using distinctive school-wide practices in comparison to the 'no trend schools' and, once these practices were identified, seven schools were selected to study through in-depth case studies. The CIERA study also stands out as it investigated at the school *and* classroom levels. It examined school-wide factors contributing to more effective schools and also used observations of teachers as they engaged in literacy teaching to generate findings related to effective teaching of literacy while also tracking children's progress in reading and writing through the administration of pre- and post-tests of reading.

Table 3.2 Research methods used in the six large-scale studies

Method	Prospects: Title 1 Puma et al. 1997	Texas study Lein et al. 1997	Chicago Designs for Change 1998	CIERA Taylor et al. 1999	Hope for Urban Education Johnson et al. 1999	Vermont study Mosenthal, 2002 Lipson, 2004
Analysis achievement data	X		X	X		Samples of children's work
Qst. principal and teachers	X		X	X		
Qst parents	X					
Qst. Pupils	X		X			
Int. principal/teachers		X	X	X	X	X
Int. parents		X			X	X
Int. children						
General obs.: classroom, playground, staff meetings		X	X		X	X + Observation of literacy teaching
Obs. Literacy using structured framework				X		
Teachers' logs				1 week: 2 x year		
Examination school documents	X	X	X		X	X
Development of case studies		X	X	X	X	X

Code: Qst.= Questionnaire; Obs.= Observation; chn.= children

A number of studies sought the views of parents and others involved in the school such as teacher aides, librarians and district supervisors through questionnaires or interviews. Observations of literacy teaching occurred in two studies but only one (Taylor et al.) used a specifically structured literacy framework for the observations, which were then checked for inter-rater reliability. In other studies reporting the use of observations, the observations seemed to be of a more general nature to determine school climate, culture and environment rather than to create a specific picture of

literacy instruction. It is interesting that none of the studies reported interviews with children though two did solicit children's views through self-report surveys.

3.1.5 Findings across the studies

Across the studies, a number of patterns and trends converged in relation to school-level practices that characterised the successful schools and distinguished them from the less effective schools serving similar populations of students. These practices are summarised in the following sections.

Strong home-school links

In all six studies, strong involvement by parents in school activities and in supporting their child's academic achievement was cited as being a vitally important element of school success. Successful schools did not wait passively for parents to get involved but worked hard to reach out to parents in genuine ways, communicating to them that they were powerful influences on their child's development (Lein et al.; Taylor et al.). They endeavoured to establish true partnerships with them and used many creative methods to involve them in concrete ways in helping the school attain the goal of higher student achievement. Some schools used videotapes of classroom instruction to help parents understand what children were learning and how they could help at home (Johnson et al.) and teachers spoke to parents in jargon-free language yet were not in any way condescending in their interactions with them (Lein et al.). Some schools sent regular newsletters home to parents informing them of classroom practices and some made a point of calling parents to share their child's successes and accomplishments with them (Taylor et al.).

There was a strong sense of family amongst successful schools; parents were often known by first name and greeted as such when visiting the school. In some schools as parents dropped their child off to school, principals and teachers waited at the entrance and invited them in for coffee and a chat; still others had 'snack and chat' sessions where parents were invited into lunch with the class teacher or an 'open-door' policy whereby parents were encouraged to visit their child's classroom (Lein et al.). Child-care was provided in some schools at parent teacher conferences

to make it easier for parents to attend (Johnson et al.). Parent associations were formed and phone calls to hard-to-reach parents were made to encourage them to take part in activities (Taylor et al.). In the Vermont study, the school was seen as the extension of the community, particularly in the isolated rural areas where it often served as the base for the community library. In all studies, when schools reached out to parents it was 'not to "fix" the child....not to "fix" the home, but was done out of a shared commitment to the child's education (Stahl, p.viii, cited in Taylor et al., 2003).

Leadership within the school

Not surprisingly, strong and determined leadership from within the school was deemed a critical factor in five of the six studies. The exception was the CIERA study. In most cases, leadership was provided by an experienced principal who not only prioritised literacy but, very importantly, managed the change process by supervising it. Principals reported spending a lot of time in classrooms and were seen as instructional leaders by the teachers (Designs for Change). In other cases, a teacher with a special interest in and knowledge of current best practice literacy processes created the climate for change (Mosenthal et al.; Lipson et al.). There was a heavy emphasis on creating a shared vision of what was possible and the cultivation of a sense of collective responsibility with everybody committed to working toward common goals; a 'no excuses' attitude prevailed (Lein et al.; Designs for Change; Taylor et al.; Johnson et al.; Mosenthal et al.; Lipson et al.).

Principals worked hard to unify the school, affirm their staff and celebrate achievements (Lein et al., Johnson et al.). When new positions became available in the schools, principals hired carefully, ensuring new staff committed to the school policy of excellence in literacy teaching (Johnson et al.). Principals ensured lots of dialogue about the change process and teachers felt they had responsibility for, and influence on, the major decisions to be taken (Puma et al.; Designs for Change; Johnson et al.). Principals supported the change process in very practical ways, e.g. flexible timetabling to support collaboration and professional development activities and creative budgeting to acquire resources needed.

Focus on improved student learning

In five of the studies a clear focus on improved student learning permeated every aspect of school life. It influenced all decisions from school and classroom planning to school organisation and the allocation of resources within the school. As staff focused on children's strengths and weaknesses, it helped to sharpen teachers' appreciation of where children needed help and where they themselves needed support to address these needs. It focused attention on the time provided for literacy and how best to maximise it. In most schools, a 'sacred uninterrupted' 90-minute block of time was in place though it was higher in others (Johnson et al.; Taylor et al.). Collaboration between teachers within and across grade levels focused on student learning and helped to bring coherence to the child's literacy experience across the school. Teachers did not allow the socio-economic status of their school and pupils to influence their expectations for children's achievement. High targets were set and as soon as goals were reached, new ones were defined and replaced the old ones ensuring a continuous focus on improvement (Mosenthal et al.; Lipson et al.; Lein et al.).

Sustained professional development

In five of the studies the provision of extensive professional development was a key feature of their success. A spirit of enquiry was evident in the successful schools. Principals encouraged individual teachers to take risks and experiment with new teaching methods to evaluate their effectiveness before recommending them to the whole school. This led to greater ownership of the change process by teachers (Designs for Change; Lein et al.) who saw themselves as inquirers, learners and investigators of how best to serve the varied learning needs of the children they taught.

Professional development was ongoing, context-specific, delivered on-site and often in collaboration with a local university education department (this is in line with the research on professional development as presented in chapter two). The emphasis was on heling teachers develop into reflective practitioners who understood the philosophy and rationale underpinning the methodologies they were using. There was a palpable sense of professional confidence amongst the teachers who were

knowledgeable and articulate about their practice (Mosenthal et al.; Lipson et al.). In some schools, the professional development was supported by the provision of substitute teachers to provide release time for teachers who were then expected to assist other staff in acquiring the new strategies (Johnson et al.). Schools were characterised as 'communities of learners' and professional development was seen not as an event but a process and a way of life (Lein et al.; Mosenthal et al.; Lipson et al.).

Collaboration

Another critical feature of low SES schools with higher than expected reading achievement is their success in building a sense of collegiality and professional community amongst the staff in part due to the synergy of factors already outlined. Opportunities for staff to truly collaborate rather than just co-operate, were apparent in five of the studies. There was a climate of trust amongst staff which often only developed several years into the change process. This relationship of trust allowed staff to share not only their strengths but also their weaknesses and thus seek help from colleagues in addressing challenges (Designs for Change; Lein et al.; Johnson et al.). Principals worked hard to provide the discrete time necessary for this high level of collaboration to flourish. The collaboration often involved teachers working within and across grade levels, leading to more informed understandings of expectations within the school (Taylor et al.; Lein et al.; Johnson et al.; Mosenthal et al.; Lipson et al.). The provision of this discrete time afforded teachers the opportunity to develop teaching methods, plan instruction and implement common assessment procedures. It enabled them to co-ordinate the literacy programmes of the classroom teachers with that of the support teachers in order to maximise classroom instructional time. In the Vermont study, classes were very small and usually multi-grade and so teachers often worked together in teams to deliver literacy instruction. In three of the four effective schools in the Taylor et al. study, the special education team came into the classroom to deliver what the authors call a 'push-in collaborative model' which allowed for small group instruction during literacy time. In other studies, all available personnel were on hand during the 90-minute block for literacy and assisted in small group or one-to-one instruction (Lein et al.; Johnson et al.).

Use of assessment data to inform planning and teaching

In five of the studies, linking student assessment data to planning and teaching was deemed a critical factor. Successful schools had a balance of both formative and summative assessment procedures. In the USA, many states have developed their own standards and have devised statewide assessments in literacy which children must pass in order to proceed to the next grade level. Thus, in some studies, classroom instruction was carefully aligned to these standards and opportunities provided for children to meet them (Lein et al.; Designs for Change; Johnson et al.). Realistic targets were set for pupil achievement and regular checks were made to ensure targets were being met. Teachers were adept at using formative assessment tools in reading and writing such as running records, portfolios and observations to plan differentiated instruction for their pupils. This assessment data was shared at meetings and used to assess the quality of both teaching and learning. In the Taylor et al. study, teachers were expected to share their assessments with the principal and the whole staff three times a year. This review was not conducted in ways that were critical of teachers but rather to focus attention on the needs of the children, to celebrate their strengths and to identify their weaknesses. Instructional data were used to support flexible grouping strategies and to enable children to receive instruction tailored to their specific needs (Johnson et al.; Mosenthal et al.; Lipson et al.; Taylor et al.).

Specific instructional practices

Consistent with the view of the International Reading Association (1999), there was no one instructional programme in place across all schools in each study. There was a wide range of successful programmes apparent in schools. Some had embarked on implementing nationally known whole-school approaches to school reform such as Success for All (Slavin et al., 1993), Core Knowledge (Hirsch, 1987) or the Accelerated Schools Project (Levin). Others were using Reading Recovery (Clay, 1993) or modified in-class versions of it. Still others were using locally designed research based programme such as the Early Intervention in Reading (Taylor et al., 1992), Right Start in Reading (Hiebert et al., 1992) or Book Buddies (Invernizzi et al. 1997). Interestingly, some schools took pride in not having an allegiance to a

specific programme but favoured a collection of homegrown eclectic approaches suitable for their own school context. Some were engaged in school wide reform and others had begun the change process on a smaller scale. Successful schools had a balanced literacy framework in place school-wide which allowed for a degree of staff autonomy and all staff worked to implement it faithfully sharing their practice at collaborative grade level and whole staff meetings (Designs for Change; Taylor et al.; Johnson et al.; Mosenthal et al.; Lipson et al.). Within the framework there was autonomy for teachers to choose texts, materials and resources and utilise a range of literacy experiences and contexts for developing skills. The minimum commitment to a daily 90 minutes of instruction in literacy led to opportunities to engage deeply and meaningfully with literacy activities. The most successful schools also had a balance in their emphasis between lower level skills and higher order thinking skills (Puma et al.; Designs for Change; Taylor et al.; Mosenthal et al.; Lipson et al.). Classroom instructional emphases are explored in the following section.

3.2 Effective Classroom Teachers of Literacy

Research into effective teachers has a long history but it is only since the mid-90s that there has been a special focus and interest in effective teachers of literacy. This has coincided with the introduction of policies at a national level in countries such as the UK and USA which are designed to raise standards in literacy and to improve outcomes for all children. It is not surprising then, that there has been a renewed interest in the field of literacy in seeking out expert teachers of literacy and investigating not only their beliefs and attitudes but also attempting to discover just what it is these teachers actually do in the classroom that sets them apart from their more typical peers. A number of such studies have taken place in the UK and the USA. Like the effective schools research these studies have embraced a range of methodologies in order to shed light on this complex question. Some researchers have concentrated their attention wholly on effective teachers of literacy in high-poverty schools (Knapp, 1997; Taylor et al. 1999, 2002, 2003). Others have sought to illuminate the practices of teachers in a range of classrooms in their respective countries (Pressley et al., 1996, 2001, 2002; Wharton-McDonald, R. Pressley, M., Mistretta-Hampston, J; Allington, 2002; Wray et al., 2002; Topping & Ferguson

2005). Several researchers have concentrated on effective teachers in the early years of school (K-3rd grade) and others have focused on the intermediate grades and adolescents (Allington & Johnston, 2000; Langer, 2001, 2000). This explosion of research on effective teachers has also seen systematic reviews of the evidence (Hall, 2002; Hall & Harding 2003). A synthesis of the studies focused on literacy teaching in the early grades and also in high poverty contexts is presented in the following sections. First the sampling and research designs are presented and this is followed by a presentation of findings across all studies.

3.2.1 Sampling and research designs

The Pressley Studies (Table3.3)

One of the first of the more recent studies of effective literacy teachers was the two-pronged survey conducted by Pressley, Rankin & Yokoi (1996). In phase one nominated teachers were asked to list the ten most essential instructional practices for teaching reading to good, average and weak readers in the primary grades (separate lists for each). These responses provided the data for the development of a large survey (436 items) of instructional practices which 86 exemplary teachers in K-2nd grade completed. This allowed the researchers to compile a picture of exemplary practice but, given the limitations of the survey methodology, Pressley et al. followed up with observational studies.

Table 3.3 Summary of research methodologies used in the Pressley Studies

Method	Pressley Rankin and Yokoi 2 phases 1996:	Wharton-McDonald, Pressley, Mistretta –Hampston 1997/1998	Pressley, Wharton-McDonald, Allington, Block, Morrow, Tracey, Baker, Brooks, Cronin, Nelson, Woo 2001
Selection of sample	50 national supervisors nominate exemplary teachers	Nominations of exemplary schools and teachers in NY.	Nominations of exemplary schools and teachers in NY, NJ, Texas, Wisconsin, California
Size of sample	Phase (1) 113 teachers respond Phase (2) 86 teachers respond	Grade one: teachers 5 exemplary 4 typical	15 pairs (exemplary and typical) teachers
Survey	X		
Interviews		Teachers: mid year end year	Teachers: toward end of year
Observations of literacy teaching		2 x monthly December to June	5 half day visits to classrooms; 2 different observers per classroom and not informed of status of teacher
Analysis achievement data		Work samples throughout the year	Standardised reading test data 6 chn in each class (2 high, average and low ability), writing samples and reading records at end of study. Comparison of results of children in the classrooms of the 5 best and 5 least effective teachers.
Case studies		Effective teachers	Effective teachers

Arising from analysis of all of the data, researchers concluded that of the nine teachers in the first study, three were highly effective, a further three were less effective than the first three and the final three were least effective of the nine, thus highlighting the difficulties with relying on nominations as a base for identifying highly effective teachers. This recalls the findings of the Taylor et al. (1999) study referred to earlier in which only three of the 11 nominated schools were in fact found to be exemplary. In the second study results were reported for performance on reading, including passage reading, vocabulary, language and word analysis on a standardised test of achievement for the six children tested in the classes of the five most and five least effective teachers. Descriptive statistics indicated than the children in the most effective classrooms had higher mean scores than the children in the least effective classrooms. Of particular interest was the finding that the scores of

the lowest achieving children were statistically significantly higher than those of the children in the least effective classes on all subtests indicating that the lowest achievers benefited hugely from being in the classrooms of the most effective teachers.

Studies in high-poverty settings (See Table 3.4)

The first of the influential studies in high-poverty settings is the Knapp study (1995): Its title is revealing in that it demonstrates the concerns of the researchers who wished to determine how academically challenging the curriculum and instruction was for high-poverty children. Research has identified that children who struggle with reading are often offered qualitatively different instruction to their more highly achieving peers (Allington, 1983, 1994). This instruction is frequently more focused on acquisition of basic skills and delivered at a slower pace making it more difficult for children close the gap. This study set out to document the kinds of instruction that students experienced, the kinds of academic tasks set, the materials used and how teachers motivated and engaged pupils. Interestingly, it sought the views of participating pupils and is the only one of the effective teachers studies to do so. Three clusters of teachers emerged, which enabled the researchers to categorise participating teachers into groups: those who put a high, moderate or low emphasis on reading and writing for meaning. While there were effective teachers in each of the three groupings, of particular interest is the finding that the children who were in the high meaning-oriented classrooms performed at a statistically significantly higher level on reading and writing than the children in the other two groupings.

The CIERA school effectiveness study has been referred to earlier in this chapter. As well as looking at school level factors it set out to examine the teaching practices of highly effective teachers. Similar to the range of effectiveness found in the schools (only three of the 11 were deemed to be highly effective at the end of the study), not all of the teachers were found to be exemplary according to the judgements of the experts who rated the teachers on a criterion list of attributes after examining observational data. They were spread across the 14 schools and exhibited a range of practices that distinguished them from their more typical peers and these are referred to throughout the remainder of this chapter. Arising from the 1999 study, schools were invited to join the CIERA School Change project if at least 75% of the

staff would participate and if more than 70% of students qualified for free lunch. Professional development was provided and teachers agreed to meet for an hour weekly in study groups. The study groups were within and across grade levels and focused on different components of literacy instruction. A range of supports was provided for the study groups including research articles on best practice and video clips of exemplary practice so teachers could see how new strategies worked in reality.

Table 3.4 Summary of research methodologies used in studies of high-poverty settings

Method	**Knapp 1995 Teaching for Meaning in High-Poverty Schools**	**CIERA 1999 (Taylor et al.) Part B of the CIERA School Effectiveness study:Schools that Beat the Odds**	**CIERA 2002/2003 (Taylor et al.) Schools in the CIERA school change project and comparison schools**
Selection of sample	At least 50% on free lunch 15 schools in 6 school districts across US. School average between 30-70 percentile on standardised tests	Schools nominated as effective as outlined earlier in chapter Free lunch 28-92%) Principals in these schools nominated the teachers	*2002:* 5 schools CIERA and 4 comparison (70-95% free lunch) *2003:*4 more schools CIERA
Size of sample	Year 1: 84 classes: grades 1, 3, 5 Year 2: 72 classes: grades 2, 4, 6,	11 effective schools 3 typical schools and 2 teachers in each grade level K-3rd (112 teachers)	*2002:* 2 teachers in each grade 1-5th grade in each school (88 teachers) *2003:* as above K-5th grade
Interviews	4 interviews with each teacher (during site visits and end of year) 6 children from each class	3 teachers in each school interviewed	Interviews with teachers
Teacher Logs		Logs kept for 1 week twice a year. Activities logged every 15 min.	
Observations of literacy teaching	3 site visits lasted 1-2 weeks at a time 44/84 classes observed over several days in yr.1 and 23 in yr.2	Structured observation framework 2 teachers in each school coding of actions every 15 mins	*2002-2003* Structured Observation: based on the work of Knapp (1995), Guthrie & Anderson (1999) 3 x a year for 1 hour
Analysis achievement data	Literacy and Mathematics achievement on standardised test	2 children in each class tested on reading, writing spelling. Pre and post test data	*2002:* 6 chn. in each class (2 high, average and low achievers) *2003:* increased to 9.
Surveys		Filled out by principal and teachers	

Researchers devised an observational framework based on the work of the Knapp (1995) study which emphasised the need for high-poverty schools to focus on teaching in a meaning-oriented manner, and also the work of Guthrie et al. (2000) which emphasises the importance of engagement and motivation in teaching literacy. The main limitation to these studies is the small number of observations conducted which in the words of the authors indicate that: 'at best we have only a snapshot of the reading instructions in these classrooms' (Taylor et al., 2003, p.24). Nevertheless, they do provide a rich picture of instruction in high-poverty schools as the observation schedule allowed for both qualitative and quantitative analyses to be made and they help to explain the variation in student growth in these classrooms.

Studies in the United Kingdom (See Table 3.5)

Like the Pressley studies, the first UK study (Wray et al., 2001/2) initially utilised a survey to examine the practices of the most effective teachers and then followed up with observations and interviews of effective and more typical teachers.

Table 3.5 Summary of research methodologies used in the UK studies

Method	Wray, Medwell, Poulson, Fox 2001/2002	Topping and Ferguson 2005
Selection of sample	Nominations by local LEA of effective schools: above average gains in literacy on standardised national test of reading; teachers selected by principals	Nominated by LEA adviser who had observed teacher, interacted with teacher in in-service and high pupil attainment on standardised test of literacy
Size of sample	*Survey* 228 (62%) effective teacher response 71 (56%) typical teacher response *Observation* 26 effective teachers/10 typical	5 effective teachers
Survey	X	
Interviews	Interviewed teachers after observations	Interviewed teachers after observations
Observations of literacy teaching	2 observations	Structured observation schedule Whole class teaching: shared reading (25 min); General literacy teaching: small group/individualised instruction (55 min) Videotaping of sessions

Teachers were nominated as being effective by Local Education Authority (LEA) officers if they and their schools had above average performance on a national standardised test compared to those who had not. In identifying a comparison group the researchers selected a group that would not be identified as experts in literacy choosing instead to select teachers who had been given responsibility for a different subject area. The sample was drawn from teachers who were designated mathematics co-ordinators and who were located in the same LEAs as the effective teachers. Upon examination of the test data there were interesting variations. In the classes of the effective teachers, average gain scores (on standardised tests) ranged from 5-11 points as measured by comparison of mean scores on a standardised test of achievement, indicating appropriate progress in literacy. In contrast, in the ten classes of the more typical teachers, there was a variation in outcomes. Two made more than expected progress, three made the approximately expected progress in a given year and five classes decreased in their average achievement scores.

The smaller scale study, conducted by Topping & Ferguson (2005), involved observation of and structured interviews with five teachers in five different schools who were selected on the basis that they had attained the largest differences in achievement between the experimental and control groups in a previous literacy intervention. An interesting aspect of this study is that all sessions were videotaped and coded after the observation using a structured observation schedule. These results were also combined with field notes made during the observations. The researchers concluded, that even among these exemplary teachers there were variations in practice and in particular in the level of awareness teachers had around the effective behaviours they were utilising, which Topping and Ferguson refer to as 'meta-teaching' and, interestingly, no teacher was deemed to be highly effective on all behaviours.

There has been a high degree of convergence across the studies in the USA and findings in the UK have also correlated well with those of the USA. This rich range of studies sheds light on the teaching practices of the most effective teachers of literacy. These are presented in the next section.

3.2.2 Findings across the studies: insights into exemplary literacy teaching

It is important to note that all of the studies described above are descriptive and correlational in nature rather than experimental. That is, they set out to provide rich descriptions of the classrooms of effective teachers and provide insights into their behaviours, beliefs and attitudes. Achievement data were used to correlate the practices of the most effective teachers with the academic attainment of the children. The converging findings of these studies are presented in the following sections.

Time: Providing opportunities to learn

A key finding in all of the studies is the substantial time allocated for literacy instruction. Across all of the studies with the exception of the UK (where the studies reported a maximum of 1 hour 20 minutes per day -Topping & Ferguson, 2005) and in the Taylor et al. studies (as high as 2½ to 3 hours), a minimum of 90 minutes was provided, indicating a high priority on literacy. This correlates with recommendations of other researchers who have suggested that, in order for acceleration in achievement to occur for students in high-poverty settings, more time needs be allocated to intensive, systematic and explicit instruction (Shanahan, 2001). Of course, allocating the time is one thing but how this time is spent is equally important. Allington (2002) contends from his observations of classrooms, that in the more typical classrooms, the 90 minute block may only translate into 15 minutes of reading of whole texts whereas in the exemplary classrooms teachers ensured children spent a lot of time reading connected text in a range of contexts e.g. shared reading, guided reading or independent reading. Knapp's (1995) findings correlate well with Allington's, as there were substantial differences in how teachers used time in the study. Teachers who emphasised meaning to a high level provided an average of 48 minutes a day for the reading of connected texts, compared to 5 minutes per day for the children in the classrooms where meaning-oriented instruction was given low priority. He argues that the focus on reading for meaning combined with the time allocation conveyed very different ideas to students on the purposes or functions of reading and writing. In the high meaning classroom, extra time was spent reading another chapter in a novel whereas in the other classrooms it meant completing an extra worksheet on a skill.

In Ireland, in the Eivers et al. study (2004), teachers reported allocating approximately an hour a day to the teaching of English, ranging from 58 minutes (3rd class) to 66 minutes (1st class). Of this time, the allocation for reading ranged from 35% (6th class) of the time to 40% (1st class). However, when issues such as classroom management were factored in it emerged that the average instructional time was between 16 minutes (6th class) and 20 minutes a day (3rd class). This corresponds with a finding in the Weir (2003) evaluation of Breaking the Cycle (see chapter one). Weir found that while school principals indicated that literacy was a priority for their school, the actual amount of time spent teaching literacy had decreased since the start of the initiative. As Weir points out, smaller class sizes (15:1) have been in operation in Breaking the Cycle schools since the inception of the programme in 1996, yet these schools continue to experience a decline in achievement. Weir speculates that the reasons for this may be related to the fact that teachers were not given the necessary support to shift their practice to suit the smaller class sizes and that the time allocated to literacy actually reduced. Eivers et al. recommended a 90 minute block for the teaching of literacy in high-poverty schools in Ireland which would increase instructional time for literacy in junior schools from three hours weekly to seven and a half. Clearly, this is necessary but teachers would need support to enable them to use this extra time effectively if it were to be granted. Major structural changes without support are unlikely to have the desired effect.

Classroom environment and materials for reading

Classrooms of effective teachers were truly print rich environments. They were attractively designed and upon entry were immediately more distinctive than classrooms of less effective teachers. Classrooms were 'suffused with literary richness' (Knapp, 1995) and filled with a wide range of high quality children's literature (Pressley et al., 1996). In the Lipson et al. study (2004) the authors remarked on the large number of books available to children in their classroom library, typically 500. This concentration on real books was highly motivating and provided children with opportunities to develop a more sophisticated vocabulary and to develop an understanding of story structure which in turn helped the children with writing their own stories. Interestingly, non-fiction was less popular than fiction

(Taylor et al., 2003; Pressley et al., 1996) with teachers reporting using such texts only 6% of the time in class. In junior classes in the UK, classrooms were filled with a large variety of Big Books and shared texts co-authored by teachers and children (Wray et al., 2002).

Allington (2002) points out that the range of books within the classroom also needs to reflect the reading levels of the children. In the most effective classrooms, teachers ensured that children had access to a range of books that were 'just right' (Calkins, 2001) for them. In other words, children could read them with a high rate of success. Reading with accuracy, fluency and expression gave children in these classrooms opportunities to comprehend the texts and to 'integrate complex skills and strategies into an automatic, independent reading process' (Allington, 2002, p.743), which was especially important for the lowest achievers. Classrooms were filled with visual displays of children's work and of records of the learning that had taken place. In the most effective classrooms, these displays were not merely for decoration but were used as stimuli for reminding children of their learning and they were encouraged to use the displays to scaffold their independent learning e.g. locating a word on the word wall for use in writing, or using the display to help them articulate a particular comprehension strategy (Wray et al., 2002). The result of this infusion of books and explicit attention to reading materials created an environment where reading was seen as a most desirable activity and, as Knapp et al. (1995) noticed in their observations, children were seen to be reading even when they should not have been!

A coherent differentiated classroom programme

Every effort was made to ensure that there was one coherent approach to the literacy experience of the child. Special education teachers frequently came into the classroom to teach alongside the teachers which helped reduce confusion for the child as often occurs in withdrawal programmes which have little in common with the classroom programme (Santa & Hoien, 1999). It also facilitated a maximum use of time. Allington (1993) contends that special education teachers need to be twice as effective as classroom teachers in order to make up instructional time that is lost in transition between classrooms which he says can amount to between 12-20 minutes daily.

There are differing reports in the literature regarding the differentiating strategies that effective teachers employ. Pressley et al.'s research (1996, 1998) revealed very little use of ability grouping by teachers in the early grades; rather, they concentrated on scaffolding readers through on the spot mini-lessons as soon as readers demonstrated a need. However, in the higher-poverty schools there was evidence of ability grouping but it differed from traditional ability grouping in that the groupings were flexible and dynamic, changing often based on the needs of the children (Taylor et al., 1999, 2002, 2003). Moreover, teachers also had whole class sessions where children had the opportunity to work with all of their peers in mixed ability groups or co-operative learning groups. Thus, lower-achieving children were not consigned to the low-reading group and left there for the year but also had the opportunity to engage in as much higher-order thinking as their peers. This is an important point as Allington (1983) has shown that lower-achieving children often receive qualitatively different instruction to their higher-achieving peers. In the Knapp study (1995), low-achieving children had the opportunity to experience a 'triple dose' of reading: they worked with a classroom aide in the mornings on the material that would be used in the classroom instruction and then with a reading specialist and finally had instructional time with the classroom teacher. In the Taylor et al. study (1999), the majority of effective teachers used small group instruction most often but in the 2003 study they reported using more of a balance between whole class and small group instruction. Taylor et al. (2003) concluded that what was most important was how the teachers were actually teaching literacy and the active nature and engagement within the organisational grouping used. This would seem to correspond with Topping and Ferguson's (2005) findings which illustrated that a greater range of effective teaching behaviours occurred during the whole class shared reading sessions than in the small settings where there tended to be more telling, recitation, closed questioning and transmitting of information.

A metacognitive approach to instruction

Teachers modeled strategies for children and what separated the most effective teachers from their peers was the explicit nature of the modeling. This was often accomplished through a think-aloud whereby teachers spoke their thought processes aloud as they engaged in the strategy whether it was in word-identification,

comprehension or writing. This explicit demonstration benefited the lower achievers in particular, allowing them to 'see' the 'invisible in-the-head' processes (Fountas & Pinnell, 1996) that good readers and writers engage in as they read and write texts. This overt modeling of strategies is supported by many years of classroom research (Duffy et al., 1987; Duke & Pearson, 2002; Fielding & Pearson, 1994; Pressley et al., 1992).

All studies referred to teachers as having a preferred interaction style of coaching children during instructional time and which Allington (2002) refers to as 'active teaching' and is seen as a key characteristic of effective teachers of literacy (IRA, 2000). However, Taylor et al. (1999) found that just under half (48%) of the effective teachers reported using a coaching style compared to 6% of the less effective teachers.

Teachers were skilled at offering the appropriate level of support to help the children achieve success. This 'on the fly' (Taylor et al., 1999) teacher intervention or 'opportunistic teaching' (Pressley et al., 2001) accomplished through scaffolding, prompting, and questioning provided the necessary supports for children to work within their 'zone of proximal development' (Vygotsky, 1978). In the Taylor et al. studies (2002, 2003), the more often a teacher was coded as 'telling' information (when children could have figured it out for themselves), the more negative the effect on children's achievement. This ability to seize the 'teachable moment' enabled teachers to accomplish a range of objectives in one lesson, achieving a higher 'instructional density' than their more typical peers (Taylor et al., 1999).

Many teachers also taught children to understand the strategies they were using through the three levels (declarative, procedural and conditional), as outlined by Paris (1995). Focusing on the strategies at these levels helped children reflect on how the strategies had actually helped them in their reading and writing, thus developing their metacognitive awareness, and helped them to monitor their understandings. Having children explain how they solved problems served to model thinking and self-regulation behaviours for their peers and developed their independence as learners. Topping and Ferguson (2005), however, note in their study that while all of the most effective teachers demonstrated strategies they did not always do so in a highly explicit manner nor did they always make the purpose of the

strategy clear to students. In addition, while they were observed coaching students in lessons, some did not articulate using it as a teaching strategy when interviewed. It would seem then that sometimes teachers are using more complex teaching behaviours than they are aware of and, given the value attached to these strategies in the literature, it would seem important that they be brought to a conscious level in professional development sessions with teachers.

It appears that developing the skills of demonstrating and coaching is difficult. Even with a supportive and multi-faceted professional development initiative in place for the schools involved in the Taylor at al studies, it emerged in 2003 (third year of the study) that telling (51%-61%) and recitation (59-76%) were still dominant interaction styles in lessons, (indicates range observed across grades 1-5) while modeling was observed only 3% of the time and coaching up to 20% of the time (it must be remembered that a very limited sampling of teaching occurred in this study). Taylor et al. (2003, p.19) note that even modest occurrences of these behaviours are positively associated with substantial growth in achievement and make the point: 'One can only wonder if a little goes such a long way, what would happen with wholesale changes in these practices'. Again, bringing this to teachers' attention in professional development sessions would seem to be essential.

Skills teaching within a context

Again across all studies, the most effective teachers were more likely to embed the teaching of skills such as phonics and comprehension within the context of authentic reading and writing activities. Wray et al. (2002) reported that the effective teachers used big books and shared texts as an entry point into the teaching of phonics and sight vocabulary, whereas the comparison group introduced skills in isolation using flashcards and paper and pencil activities. Teachers had a variety of teaching strategies at their disposal for teaching phonics and sight vocabulary and instruction was systematically planned (Pressley, 1998, 2001). Even when taught in isolation, it was communicated to students why they were learning a particular skill and they were given opportunities to use their newly acquired knowledge within a context very quickly afterwards (Knapp, 1995). Taylor et al. (1999, 2002, 2003) found the most effective teachers embedded skills instruction in the context of real reading and

writing 45% of the time, whereas the less effective teachers were observed doing this 0% of the time. Moreover, the teaching of phonics in grades 2-5 correlated with lower achievement (presumably because many children had already mastered these skills and were not likely to benefit from such instruction). This finding is in line with current research into phonics teaching which sees phonics as a means to an end and advocates a fast pace over a shorter time period than has traditionally been the case (NRP, 2000, Lewis & Ellis, 2006).

Reading for pleasure and information was emphasised in effective classrooms. The emphasis was on a deep understanding of text in the context of real reading and teachers were aware of challenging children to think deeply about the text and to consider the big ideas within it (Knapp et al., 1995). There were opportunities for children to activate background knowledge before reading, make predictions and to discuss higher-order questions during and after reading. Talk about texts was promoted and was not only teacher-directed but student-directed and was facilitated in paired and small group work as children explored the deeper meanings of texts; this occurred 69% of the time in higher meaning-oriented classrooms compared to 12% in the low-meaning oriented classrooms. The style of the interactions in effective classroom was more conversational than interrogational (Allington, 2002).

Of the 140 classrooms in the Knapp study, only 23% were coded as emphasizing meaning to a high level, with 31% coded as placing a low emphasis on meaning making. In classes where high levels of meaning-oriented instruction were provided, children had significantly higher achievement than those in low meaning classes. The small number of teachers emphasizing higher-order thinking skills was also noted in the Taylor et al. studies where it did not feature highly in the lower grades in particular. Explicit comprehension strategy instruction was rarely witnessed in grades 1-3 (5 out of 70 teachers in 1999, and it varied between 8-18% of the time in the 2003 study). Thus, teachers were concentrating on the lower-level skills of word-identification in the early grades at the expense of comprehension. Paris (2005) argues word-identification skills are constrained finite skills which once mastered have a limited sphere of influence on later reading development, whereas comprehension and vocabulary skills develop before, during and long after word-identification skills. Therefore, it would seem important that comprehension

instruction should parallel that of word-identification instruction even in the early grades. Making this information available to teachers would seem to be a key part of professional development activities.

In effective classrooms, writing was taught as a 'tool for communication' (Pressley et al., ' 96, Knapp, 1995). Exemplary teachers put an equal emphasis on the processes of composing writing and the mechanical aspects. They modeled how to plan, draft and revise a piece of writing, teaching children to concentrate on expressing their thoughts and ideas first in creative and original ways (Pressley et al., 1998, 2001). As children engaged in the act of writing, teachers conferenced with them focusing primarily on meaning rather than on the mechanical features. That is not to say that mechanical aspects were less emphasized; rather, children were taught to attend to these features of text as they were preparing to publish their writing. Instruction was directed towards those children who demonstrated a need for the skills in question rather than to the whole class. Moreover, rather than being taught as skills to be mastered for the sake of it, these skills were taught in a way that enabled children to understand their function and discover how they could help them enhance the quality of their writing (Wray et al., 2002). In general, the writing of children in the outstanding teachers' classrooms in first grade was distinguishable on a number of variables: they tended to be longer (a page or more), children wrote in a variety of genres, and exhibited control over a large range of punctuation marks. In contrast, in the more typical classrooms, the writing was typically two/three sentences, often incoherent, and children exhibited less control over mechanical aspects (Pressley et al., 1998, 2001). Teachers integrated reading with writing activities and reported integrating across the curriculum in many cases.

Knapp et al. (1995) note that in classrooms that emphasise meaning-oriented instruction children acquired the basic skills as well as the children in the skills-oriented classrooms, thus illustrating that even in areas of high-poverty where children often struggle with basic skills, a meaning-oriented approach is as effective as a skills approach with the added benefit of being more intellectually challenging and stimulating. Moreover, they argue that this kind of approach 'runs counter to strongly held beliefs about instruction for high-poverty children'; it can help to narrow the gap between these children and their more advantaged peers. Therefore encouraging teachers to adopt a dual emphasis on meaning and skills in their

classrooms would seem to be a promising proposition. Pressley et al. (2001), quoting Morrow note that teachers adopted a 'radical middle' by incorporating both emphases into their teaching repertoire, thus supporting the view that literacy acquisition is a dialectical process (Riegel, 1979) which must proceed simultaneously from part-to-whole and whole-to-part as outlined by Rumelhart's (1994) interactive model.

Formative assessment

Exemplary teachers were also distinguishable from their more typical peers by their approach to assessment. They were more diagnostic in their assessment of children's developing understandings (Wray et al., 2002). They worked at understanding children's thinking as they engaged in tasks, probing to determine their level of understanding of skills and strategies and ability to transfer them to new contexts. They listened to the quality of children's responses to questions and oral work and were skilled at intervening and clearing up any misunderstandings that occurred, often in the context of the scaffolding interactions noted earlier. They also examined children's work samples for evidence of their developing mastery of skills. In effect, they had 'well-developed systems for monitoring children's progress and needs in literacy' and used this information to inform a plan, teach and assess cycle' (Wray et al., 2002, p.9).

Expert classroom management

Exemplary teachers had 'masterful classroom management' (Pressley et al., 1998) and seemed to exert effortless control over the class. Not surprisingly, all studies reported this as a defining feature of these classrooms. They had predictable routines, which helped students to anticipate what was expected of them. Lessons were lively and fast-paced and teachers were adept at building on pupils' responses and re-focusing attention on the task at hand as needed (Wray et al., 2002). Lessons were well-planned and activities built on students' interests and choices were offered to them. Maximum use was made of instructional time and the transition between lessons was kept brisk (Lipson et al., 2004). In one study, 90% of students were observed to be on-task 90% of the time (Pressley et al., 2001). Taylor et al. (1999)

also documented high levels of engagement in the classrooms of the most accomplished teachers, with 96% of the students perceived to be on-task when the observer scanned the room at five-minute intervals during observations, compared to 61% in classes of the less accomplished teachers. While the authors caution that the sample of teachers involved was small, they nevertheless point out that engagement is an important variable in effective teaching. The classroom atmosphere was warm and inviting and fostered respect for all. A spirit of co-operation pervaded and a consistent approach to discipline was apparent; children were expected to self-regulate their behaviour. In most instances, bad behaviour was stopped quickly and re-directed in positive ways (Pressley et al., 2001). Teachers communicated to students that they were valued members of the classroom community and that they had high expectations for them. Finally, exemplary teachers were excellent communicators and managers and were able to work well with the support personnel working in their classrooms, directing operations so the best use was made of available manpower (Taylor et al., 1999).

This chapter has presented the research on effective schools and teachers. The next chapter looks at what the research has to say about the teaching of essential early literacy skills.

4 RESEARCH ON LITERACY

The research base underpinning the design of the classroom instructional programme for literacy that was used in this study is summarised in this chapter. Firstly, the research on the essential skills of reading (alphabetics, fluency and comprehension) is presented. In the second section, the theory and practice of writing and its role in reading development is outlined. Thirdly, the contribution of motivation and engagement to literacy learning is explored. The chapter concludes with a discussion on classroom models that integrate the research base into their design.

4.1 Alphabetics

No other topic in the field of reading has been more controversial, more hotly debated and contested and indeed more successful in dividing those involved in the teaching, research and policy formation of reading, than the topic of phonics. The pendulum has consistently swung back and forth many times with one group of researchers arguing that the teaching of phonics is an essential component of an early literacy programme and another group arguing against it, citing the many irregularities of the English language, the restricted decodable texts that children are subjected to reading in pure phonics programmes and the fact that it diverts attention away from the construction of meaning, the ultimate goal of reading. Chall's now classic publication: *Learning to Read: The Great Debate* (1967) reviewed much of the literature of the early 20th century in relation to beginning reading instruction. She concluded, like Dr. Samuel Orton (1937), that there was strong case to be made in favour of adopting a synthetic phonics approach to early reading instruction. She argued that synthetic phonics instruction was superior to whole word approaches in respect of a number of measures of word recognition and oral reading accuracy. Children instructed in synthetic phonics were able to recognise and read more words than children instructed with the whole word 'look-say' method. Between 1970 and 1990 the writings of Frank Smith, Kenneth Goodman, Don Holdaway and Jane Hansen were instrumental in steering instruction in reading towards approaches emphasising the construction of meaning and away from systematic phonic

approaches in what became known as Whole Language. Adam's 1990 seminal publication *Beginning to Read: Thinking and Learning about Print* fuelled the debate yet again, as like Chall's book, Adams examined the research base on early reading instruction and supported Chall's findings that systematic phonics instruction was essential for beginning readers. She highlighted the role of phonemic awareness and indicated the need to teach this skill to pre-readers, as it reduced the likelihood of later reading failure. The notion of balanced reading instruction which advocated combining explicit skill instruction within a broad and rich literacy programme came into being in the 1990s. Eminent reading researchers advocated a balance between basic skills and whole language and these views were presented in an influential publication on early reading instruction *Preventing Reading Difficulties in Young Children* (1998). This was followed by the National Reading Panel (NRP) report (2000) which examined the scientific evidence for teaching reading (not just early reading). While the latter publication has been criticised for its narrow focus and exclusion of many topics (e.g. writing) and its reliance on experimental and quasi-experimental studies only in reaching its conclusions, it has been influential in shaping policy.

Phonemic awareness knowledge along with letter knowledge at entry to formal schooling, have been identified as the best predictors of how well children will learn to read (Bryant et al., 1989; IRA, 1998; Cunningham & Cunningham, 2002; Share et al., 1984). The NRP defines phonemic awareness as the ability to focus on and manipulate individual phonemes in words and syllables. Furthermore, it suggests that phonemic awareness instruction can be conducted as an oral activity only or it may be combined with manipulation of letters to reinforce phoneme-grapheme relationships and, when this is the case, phonemic awareness instruction qualifies as phonics instruction. The results of the NRP meta-analysis of the importance of phonemic awareness instruction in beginning reading were impressive according to the authors. Specifically, the report found that phonemic awareness training was responsible for the improvement in phonemic awareness, reading and spelling following training, and that its effects on reading lasted well beyond training. It helped normally achieving readers to spell but was not effective for improving the spelling of older readers with learning difficulties, who traditionally

have been found to have trouble in mastering spelling. Ehri et al. (2001) found also that phonemic awareness training had a positive effect on reading comprehension.

The NRP authors were careful to point out that phonemic awareness training alone was not enough to constitute a full reading programme and as such was to be regarded as foundational knowledge and should be integrated into a balanced literacy programme. Largest effect sizes (d=0.81) were found for children taught phonemic awareness in small groups while smaller effects were found for instruction conducted 1-1 and whole class. Ehri and Nunes (2002) suggest that the smaller effect size for individual instruction may be due to the fact that students taught in this organisational grouping were the ones exhibiting the most difficulty in acquiring this skill. The largest effect sizes (d=1.37) were found for instruction lasting 5-9.5 hours with instruction lasting 1-4.5 hours and instruction lasting 20-75 hours achieving smaller effect sizes of (0.61. and 0.65, respectively) suggesting that phonemic awareness instruction does not need to be prolonged to be effective. Additionally, studies that had children manipulate letters as they segmented and blended sounds had larger effect sizes than those that did not (d=0.67 and 0.38 respectively). It is, of course, important to assess children and to determine their need for this kind of instruction, as children will differ and it should not be assumed that all children will need the same instruction or duration of instruction (Cunningham & Cunningham, 2002; Ehri & Nunes, 2002).

Explicit and systematic phonics instruction is significantly more effective in enhancing reading achievement than instruction that encompasses little or no instruction in phonics (NRP, 2000). Across grade levels, it was found to improve the spelling ability of good readers and was strongest in this aspect in relation to children in kindergarten. However, a similar review of the experimental evidence by Torgerson et al. (2006) in the UK, found no effect on spelling. The NRP authors conclude that there is 'converging evidence that explicit, systematic phonics instruction is a valuable and essential part of a successful reading programme,'(NRP, 2000, p.10). Again it points out that phonics is a means to an end and that instruction should be embedded within a balanced literacy framework with opportunities for children to apply their skills in daily reading and writing activities and just as importantly, that children should understand the purpose and utility of what they are learning. The Torgerson et al. review (2006) came to the same conclusions and did

not find any significant differences between synthetic and analytic approaches. While the NRP found that a variety of approaches to phonics instruction were effective, they found that systematic synthetic phonics instruction had a positive and significant effect on children with reading difficulties and lower-achieving students. Of interest in this study, was the finding that systematic synthetic phonics instruction was significantly more effective in improving the alphabetic and word-reading skills of children from disadvantaged backgrounds than approaches that were less focused on these skills.

In England synthetic phonics approaches have been incorporated into the National Literacy Strategy Framework on foot of the report of the Independent Review of Early Literacy or the 'Rose report' as it has come to be known after its main author. The NLS (2006) strategy has issued guidelines to teachers that include a number of recommendations. Firstly, phonics teaching is to be embedded within a broad and rich curriculum with opportunities for children to apply their knowledge in a variety of contexts such as shared and guided reading and writing activities. Secondly, phonics instruction should be systematic, planned, sequential, incremental and taught daily in discrete sessions at a brisk pace using a multi-sensory approach. Thirdly, children should be taught to blend phonemes in the order in which they occur all the way across a word in order to read an unfamiliar word and, simultaneously, children should be taught to segment phonemes and understand that blending and segmenting are reversible processes. Finally, phonics is seen as a time-limited skill and should be acquired quickly to enhance children's early reading and writing skills. Like the NRP, the Rose report concluded systematic phonics instruction could begin early (five years in the UK and kindergarten in the USA) contrary to previous assumptions that children of this age were not ready for this kind of instruction. Stuart (2006) also argues that early, explicit, and systematic teaching of phonics equips children with the tools to become independent readers and suggests differentiated teaching for children who do not progress as expected before the end of year one of school. Share's (1995) research also demonstrates that high quality word work can enable children to 'self-teach' in independent reading and writing as they use learn to use their fund of knowledge of words and how they work to decode and encode unfamiliar words.

The NRP authors also recommended an increased emphasis on phonics at pre-service and in-service which should focus on helping teachers assess phonics programmes' suitability for their learners and also on how to devise a programme of their own to suit their own context and the individual needs of children in their classrooms and on how to deliver instruction in an 'entertaining, vibrant and creative' manner (p.11).

Hall (2006) while acknowledging the critical role of phonics in early reading argues that reducing the argument on beginning reading to which phonic method to use denies the complexity of the reading process and may oversimplify matters by suggesting that a particular method can solve 'the long tail of underachievement' (p.9) apparent in schools today. She situates phonics within the wider literacy curriculum and reminds us of the host of other factors that impact on learning to read, including how children view themselves as learners, how they view the reading process, the range of skills they need to become successful readers, the influence of teachers' views of the literacy process which in turn impact on the climate and pedagogy of the school and classroom and finally the influences of the home and the wider community.

The NRP did not report on the relationship between early phonics and writing. Huxford (2006) argues that early phonics is really spelling in the early stages of development. This argument is borne out by early research. Liberman et al.'s work in the 70s has shown that phonemic segmentation (required for spelling) is necessary for the development of phonic blending (required for reading). In addition, Frith's model of literacy development (1985) suggests that it is in fact a precursor to its development. Therefore the provision of opportunities for children to write independently from the earliest stages has a long history (Montessori, 1912/1964, Chomsky 1979, Clarke, all cited in Adams 1990) and is seen as critical in helping children to acquire the essential skills of segmentation and blending. It would seem then that allowing children to write using invented spelling helps develop their phonemic awareness and their ability to match phonemes to letters. Gentry's work (1982) has also contributed to understanding the stages of development that children go through on their way to being competent writers and examination of children's early writing using this framework can provide insights for teachers into children's phonic knowledge.

Word recognition however, should not be confined to phonics. As Dombey (2006) points out, the English language has a deep or opaque orthography and has been influenced by other languages such as Latin, Greek and French. As such, children will require explicit instruction in acquiring the 100 most frequent words of the English language, many of which are irregular, and also explicit training in using visual and morphemic strategies as they attempt to decode and encode unfamiliar words.

Paris et al.'s (2005) work, suggests that phonics is a constrained skill which is time bound and once mastered contributes little to long term reading achievement. On the other hand, vocabulary knowledge and comprehension develop across the life span and continue to enhance reading achievement. This suggests that early reading programmes that focus primarily on word-identification limit children's reading development and that a dual emphasis on comprehension and vocabulary development is desirable from the outset. Furthermore, fluency is associated with both word recognition and comprehension and has been seen as a vital bridge between the two. Fluency has been identified by the NRP (2000) and Snow, Burns and Griffin (1998) as one of the essential components of a literacy programme.

4.2 Fluency

The NRP defines fluency as the ability 'to read orally with speed, accuracy and proper expression' (p.11) which takes into consideration the reading rate, automaticity of word recognition and the influence of prosody on fluency. Various definitions of fluency appear in the literature with different emphases apparent in each. According to Rasinski and Hoffman, (2003) LaBerge and Samuels' (1974), theory of automatic information processing which focuses primarily on word recognition processes is one of the dominant theories explaining the role of fluency in reading and has been recognised by the NRP and other reviews of fluency such as Kuhn and Stahl, (2000). The act of reading requires attention to two interdependent tasks, namely, word identification and comprehension (Rasinski and Hoffman, 2003). Given that the ultimate goal of reading is comprehension, it is essential that word recognition becomes fast, effortless, autonomous and unconscious (Logan, 1997) to allow the reader's mental capacity to be diverted to processing and

constructing the meaning of a given text. Thus, the goal of word recognition programmes is to develop these skills to an automatic level. Prosody the other element of the NRP definition has been defined as a 'general linguistic term to describe rhythmic and tonal features of speech....prosodic features involve variations in pitch (intonation), stress (loudness and duration (timing)....prosodic reading is the ability to read in expressive rhythmic and melodic patterns - educators call it reading with expression' (Dowhower, 1991, p.166).

Schreiber (1991) suggests that these prosodic features are a natural part of oral language but are less easy to identify in written language. Thus, children need explicit instruction to help them attend to the markers in written text that will help them to read with expression e.g. punctuation marks, print in bold or capital letters. Another definition of fluency defines it as 'freedom from word-identification problems that might hinder comprehension (Harris and Hodges, 1995 cited in Samuels 2002, p.167) thus specifically linking it to comprehension which was also recognised by the NRP when it acknowledged it as one of 'several critical factors necessary for reading comprehension' (p.11). The NRP found evidence that guided oral reading that included explicit feedback from teachers, peers and parents had a significant impact on word recognition, fluency and comprehension across a range of grade levels regardless of whether the student was a good or poor reader. A large-scale study of reading fluency (Pinnell et al., 1995) involving 1,000 students in Fourth grade found that oral reading fluency correlated with achievement i.e. fluent readers tended to achieve at high levels while less fluent readers achieve at a lower level.

Much of the research literature suggests that fluency is a neglected aspect of reading instruction in classrooms apart from the widespread use of round robin reading which is not seen as being an effective method of developing fluency (Rasinski & Hoffman, 2003). There are several ways for a teacher to first of all assess reading fluency and to then introduce a number of effective methods to enhance it. Fluency can be assessed by having a student read aloud, for one minute, and by counting the number of words read correctly and comparing them to norms for a particular age group. Rasinski (2004) compiled the norms presented in Table 4.1 from a number of sources (www.prel.org). Norms suitable for the Irish context

are reported in Shiel and Murphy (2000): 50, 60, 70, 80, words correct per minute for Senior Infants, First class, Second class and Third class respectively.

Table 4.1 Norms for oral reading accuracy in the USA

Grade	Fall (WCPM)	Winter (WCPM)	Spring (WCPM)
1		10-30	30-60
2	30-60	50-80	70-100
3	50-90	70-100	80-110
4	70-110	80-120	100-140

Prosody has been assessed using a four point scale available on the website of the National Centre for Education Statistics (www.nces.ed.gov/pubs95/web/95762/asp) and was used by the Pinnell et al. study (1995) referred to earlier and found to be a reliable measure of prosody. As a child reads aloud, the teacher rates the child's reading according to the criteria for each level e.g. the child is rated as being at level one if s/he reads mainly word for word and at a level four if reading primarily in large meaningful phrase groups with expression. While assessing a child's fluency, a teacher should also consider if the text chosen is at a child's independent, instructional or frustrational level as text difficulty also affects fluency. There are many techniques that a teacher may use to improve a child's reading fluency. These include any technique which involves corrective feedback to oral reading such as repeated reading of a text to a pre-determined level of fluency (Samuels, 2002), teacher-student assisted reading (see Kuhn & Stahl, 2003 for discussion), readers theatre (Rasinski, 1999), paired reading (Topping, 1987), tape-assisted reading while listening (Biemiller & Shany, 1995), partner or buddy reading where a less able reader is paired with a more competent reader (Eldredge, 1990; Samuels, 2002). Despite being widely cited as being beneficial, providing time for independent silent reading was not found to have a significant effect on fluency (NRP, 2000), as evidence for this practice relies on correlational rather than experimental research and since such evidence was not available the NRP did not recommend a focus on extended independent silent reading. As Rasinski (2004) points out, good fluency instruction which takes into account accuracy, rate and prosody through instructional techniques such as those already outlined, can give rise to gains in fluency and comprehension. He warns against focusing fluency instruction too much on the

number of words read correctly per minute lest students construe speed rather than comprehension to be the goal.

Mandel Morrow, Kuhn and Schwanenflugel (2006) have reported that a family fluency programme which included training for parents of children who were receiving fluency training in school as part of their reading programme, had a greater positive effect on fluency for the participants than for the control group and that struggling readers progressed at similar rates as typical readers. Sénechál's (2003), meta-analysis of parental involvement programmes showed that parental involvement had a positive effect on children's reading acquisition and it was most effective if parents were trained to use a specific reading strategy that children were working on in school. Mandel Morrow, Kuhn & Schwanenflugel, (2006) suggest that a training programme such as this holds promise for improving literacy while also involving parents in their child's literacy development in meaningful ways. The next section looks at the role of comprehension in reading development.

4.3 Comprehension

In examining the research base on comprehension the NRP (2000) focused on vocabulary development *and* text comprehension. The NRP acknowledged the critical role of vocabulary in reading instruction and examined the research on both oral and print vocabulary and its connection to the reading comprehension process. It concluded that vocabulary instruction does lead to gains in reading comprehension but must be taught in age appropriate ways. The NRP also indicated that vocabulary could be taught directly, indirectly and through computer use. Repetition and multiple exposure to new words within rich contexts is necessary as is the active engagement of the student.

Graves and Watts-Taffe (2002) have suggested that a systematic approach is needed in order to develop children's vocabulary and have suggested four components for inclusion. Firstly, wide reading should be encouraged as 'research has shown that children who read even ten minutes a day outside of school experience substantially higher rates of vocabulary growth between 2nd - 5th grade than children who do little or no reading' (Anderson & Nagy, 1992, p.46). Children

with reading difficulties tend to read less than their more able peers, and so are not exposed to the rich, complex and more sophisticated language and syntactical structures of text. On the other hand children who read more get stronger and stronger, reading many more minutes per day, reading more varied texts and as a result are exposed to a richer language base and text structures and develop a larger vocabulary than those who read less. Stanovich (1986) has termed this the Matthew effect. Secondly, individual words should be taught. Beck, McKeown & Kucan, (2002) suggest that the words selected should be what they term tier two words (those that appear in texts read aloud and in guided reading and for which students have some conceptual understanding already e.g. to take care of = tend) and tier three words (those that arise in content area reading) while also ensuring that tier one words (high frequency) are at an automatic level. A third element of Graves and Watts-Taffe (2002) programme is to teach word learning strategies. This involves providing direct instruction to students on how to use context clues effectively and how to use morphemic analysis to unlock the meaning of new words. Finally, they suggest fostering 'word consciousness' which in effect is creating a positive disposition towards new words. They suggest modelling skilful and adept diction in speech and encouraging students to notice when words have been used in interesting ways in texts they are reading and also to encourage them to be skilful and adept in their choice of words in personal writing. Children should be taught that reading and writing are reciprocal processes and what can be learned in one can support and strengthen the other. Adopting the stance of first the reader and then the writer can immerse children in reading and writing and help them value the precision and apt use of language (Graves, 1995; Calkins, 1984; Hansen 1987; Barrs, 2000). Graves and Watts-Taffe, (2002, p.150) further suggest that children need to hear high quality literature daily which contains 'rich, precise, interesting and inventive use of words...which should be posted around the room.' Developing curiosity and interest in words is vital and, as is outlined in the next section on comprehension, several of the comprehension routines (reciprocal teaching, literature circles, questioning the author) are useful for promoting word play with students. Children when they take note of interesting words should then be encouraged to use them in appropriate ways in their own writing. This approach underscores the integrated nature of reading, writing and word study in a balanced literacy framework. Good vocabulary instruction then excites students about words and contributes to their comprehension.

Much of the research on the comprehension process has been acquired through the study of the behaviours of good readers. Duke and Pearson (2002) provide an overview of these behaviours. Good readers are active at all phases of reading; thus they have specific strategies that they engage in before, during and after reading. For example they select texts based on their reading goals and preview them in terms of their structure by skimming and scanning and highlighting which sections may be particularly relevant to their purpose before they read. During reading good readers make predictions, ask questions and try to summarise main points. They monitor their reading, evaluating their understanding as they go, paying particular attention to new ideas and terms that may need to be clarified. They moderate their reading rate depending on the text difficulty and the level of their prior knowledge and read 'different kinds of text differently' (Duke & Pearson, 2002, p.206), making interpretations and building mental images as they are engaged in the act of reading. When reading narrative, they pay attention to the characters, setting, and plot and in non-fiction they pay attention to the text structure, the author's style, beliefs and authority on the subject, often constructing summaries of important points during and after reading. For good readers then, reading is also an evaluative act during and after reading as they decide if the text is stimulating or if the views presented within are believable (Pressley, 2002). Thus, for good readers reading is an active, thinking, strategic language process whereby meaning is constructed before, during and after reading. This view is also held by the NRP who, citing Harris and Hodges (1995), define reading comprehension as the 'intentional thinking during which meaning is constructed through interactions between text and reader.' These processes of reading indicate that the good reader is very much metacognitively aware as s/he engages in the process of reading and that the transaction between the reader and the text is moderated by this awareness.

Research on comprehension suggests that these behaviours can be taught to all readers and can result in enhanced reading achievement. A supportive classroom environment is required that balances direct explicit instruction in specific comprehension strategies with time spent reading and writing a range of text genres for real purposes (Duke & Pearson, 2002). Much of the early work on comprehension strategies (1970s and early 1980s) was focused on the teaching of one strategy to a group of children while the control group were not provided with

the instruction. Pressley (2002) reviewed these studies and indicated that the strategies proven to enhance reading comprehension and recall of text included the following: (a) relating text to prior knowledge; (b) creating mental images of text; (c) question generation; and (d) generating summaries. Duke and Pearson's (2002) summary is similar though it also includes teaching students to pay attention to text structure using story grammar or story maps in narrative texts and identification of text structure in non-fiction through concept maps and graphic organisers.

Later work on comprehension strategies, typically from the 1980s onwards, focused on multiple strategy instruction as it became clear that good readers utilised more than one strategy at a time. Palinscar and Brown's (1984) work was influential in this period as it documented the effect of teaching the four strategies of predicting, questioning, clarifying words and ideas when confused and summarising on students' comprehension and recall of text. Students were taught each strategy in a gradual release of responsibility model and in groups of four. Each participant over time assumed responsibility for a strategy while the teacher observed and monitored attempts scaffolding and providing feedback in the process. Pressley (2002, citing Brown & Palinscar, 1989 and Rosenshine & Meister, 1994) reports that an improvement in comprehension and text recall can be observed after 20 sessions though effect sizes are moderate.

Pressley et al.'s work in the late 1980s and 1990s focused on documenting the comprehension instruction in grades 2-6 in three schools that utilised what they termed as a transactional strategies model of instruction. Common to these classrooms were a number of features. Firstly, teachers taught both word identification and the comprehension strategies outlined earlier as being effective in enhancing achievement. While teachers often taught these strategies in small groups, they were reinforced throughout the day and across the curriculum. Small group work facilitated high quality teacher-pupil dialogue and pupil-pupil interaction which helped students understand the strategies at a deep level. Strategies were taught to students in such a way as to demonstrate to them how the strategies could help them enhance their understanding of text. Most importantly, students were taught to combine the strategies and to activate them in flexible ways when they felt the need to do so and when text was not making sense to them. Thus, self-regulation was at

the heart of the instruction and emphasised the need for the learner to be actively thinking as they constructed meaning.

The NRP found evidence for the teaching of 16 categories of text comprehension instruction and of these seven had strong support in the research. Combining these seven strategies into a multiple method strategy was seen as more desirable and effective. The seven strategies include those already outlined in the discussion above (1) question generation; (2) question answering; (3) summarisation; (4) use of story structure; (5) use of graphic and semantic organisers to comprehend material read; (6) comprehension monitoring where students learn to be active and aware of their understanding; and (7) the use of co-operative learning strategies where students orchestrate the strategies together.

The teaching of strategies is best done in a gradual release of responsibility model (Pearson & Gallagher, 1983; Fielding & Pearson, 1994; Duke & Pearson, 2002). In this model, the teacher begins by explicitly naming and describing the strategy indicating why it is important, when it should be used and how it facilitates comprehension. Secondly, the teacher demonstrates the strategy thinking aloud as s/he does, to enable children to see the invisible in the head processes that readers engage in as they use a particular strategy. The text that the teacher chooses should be useful for demonstration purposes and can be at the easy, instructional or challenging level. Next, opportunity for scaffolded instruction is provided as the teacher and students collaborate on using the strategy together using a text that is either at an instructional or independent level so students are concentrating energies on applying the strategy and not struggling over unfamiliar words. Fourthly, there is a guided practice of the strategy which can be done in pairs and small groups. The teacher circulates as children attempt to put into practice what they have been taught and monitors their efforts reinforcing and coaching as required and rectifying any misconceptions the children may have. Fifthly, students embark on using the strategy independently using an independent level text. Finally, students should reflect on the strategy and how it helped them understand the text and identify what they found easy, difficult or confusing. McLaughlin (2003) suggests that the Think-Pair-Share activity (McTighe & Lyman, 1988) could be used for reflection purposes whereby children share their thinking and identify a personal goal for the next lesson using the reflection stems provided and share these with a partner before moving to a whole

class share in Stage three of the model discussed below. This model of instruction can then be used for modelling explicitly the orchestration of multiple strategies during reading as good readers do, rather than relying on one strategy. Duffy et al.'s (1987) research has demonstrated that long-term use of a model such as this one has a positive effect on reading achievement.

Another strength of the Pearson and Fielding (1984) model is the metacognitive emphasis it utilises in helping to make readers aware of specific strategies and when and how to use them. Paris et al.'s work (1995) has suggested that metacognitively aware readers possess knowledge on three levels. The first of these is the declarative level in which the learner is aware of a particular strategy and that using it can enhance comprehension. At the procedural level the learner is aware of how to carry out the strategy. The third and more advanced level is that of conditional knowledge whereby the learner is aware of when and why one uses a strategy and chooses to activate its use in independent reading. This last level indicates that the learner has achieved self-regulation in using the strategy. However, even when children have this level of knowledge, success is not guaranteed. As Paris, Wasik and Turner (1991, p.634) noted:

> The development of strategic reading depends on personal motivation to select and apply persistently strategies that are appropriate to the task. Such motivation requires knowledge about the instrumental value of strategies, different purposes for reading, confidence in one's self-efficacy, and beliefs about the ability to control reading to achieve a desired goal.

Providing time for independent reading and questioning students on the strategies they employed while reading can encourage pupils to transfer the strategies to their independent reading. The role of motivation and self-efficacy is discussed below

McLaughlin (2003) has developed a three-stage guided comprehension model which incorporates much of the research described above. In stage one, the teacher utilises the Pearson and Fielding (1984) framework outlined above and does so in a whole class format documenting at the guided and independent phases which children are having difficulty with the strategy. In stage two, the teacher takes a small group aside to work on a particular strategy or group of strategies, utilising an

instructional level text and again works through the six steps (explain, demonstrate, collaborate with students, guided practice in pairs, independent practice and reflection) while the rest of the class is involved in small group work using one of the three comprehension routines in the model or reading centres. The comprehension routines recognise the social dimension of learning and allow students to work in co-operative learning groups. Reading centres are developed to provide a variety of purposeful authentic activities related to the texts children are reading (based on a range of research see McLaughlin, 2003) and allow students to practice independently the strategies introduced with the whole class. McLaughlin utilises three comprehension routines. The first of these is reciprocal teaching (Palinscar & Brown, 1984) and has been outlined earlier, the second is literature circles (Peterson & Eeds, 1990; Daniels, 1994; Brabham & Villaume, 2000) and the third is Questioning the Author (Beck et al., 1996).

Literature circles promote what Peterson and Eeds (1990) refer to as 'grand conversations' about literature and teach students to 'take responsibility for developing and discussing their own questions and interpretations for texts, and launch more complex levels of thought, language, and literacy for students and teachers' (Brabham & Villaume, 2000, p.279). Teachers provide scaffolds for students initially to help them adopt thoughtful and interpretive stances to what they are reading. This may include modelling of particular roles (Daniels, 1994) that students may take on while reading: (a) the discussion director (who facilitates the conversation and asks questions- teacher needs to model how to ask different levels of questions initially (e.g. memory, convergent, divergent and evaluative: Ciardello, 1998); (b) the literary luminary/passage master (chooses memorable and important sections of text); (c) the connector (encourages text-to-text, text-to-self and text-to world: Keene and Zimmerman (1997) and (d) the artful artist (making a symbolic representation of the text and using it as a springboard for conversation). Children also keep response journals that facilitate recording their thinking and unique response to text or they may use post-it notes on specific pages to record their thinking in note form (Routman, 1991, 2000). Brabham and Villaume (2000, p.279) argue that 'literature circles support the repositioning of stances that control talk in the classroom... providing conversational structures that help both students and teachers break away from typical classroom discourse patterns in which students

respond only to the teacher's probes. The teacher then is seen as one member of the group and not the director of the conversation. Children come to the group having read the text and completed their preparation. The conversation and the time is spent on high-level discussion of the text. Used consistently, literature circles provide opportunities for readers to 'become increasingly adept at expressing interpretations of texts and responding to the contributions of others in thoughtful, respectful, and probing ways' (Brabham & Villaume (2000, p.280). Daniels (1994) suggests that the scaffolds should be removed over time. Holding on to scaffolds for too long can lead to conversations that are perfunctory, scripted, predictable rather than the lively occasions they were meant to be.

In the Questioning the Author (Beck et al. 1996) routine, the teacher guides children to a deeper understanding of text by modelling through a think - aloud the asking of probing questions of the author (what is the author trying to tell us, why is the author telling us this, did the author say it clearly and could the author have said it better) before moving on to the guided and independent practice as outlined in the Pearson and Fielding (1984) model. Children are guided to critique, evaluate and challenge thinking and to use evidence from the text to justify opinions.

The third and final stage of the McLaughlin model involves whole class reflection and goal setting incorporating the thinking of Schon (1987) and Hoyt and Ames, (1997) (both cited in McLaughlin (2003). Children are encouraged to think critically, reflect on their learning and take ownership for future learning by setting goals for themselves. Children are guided to: (a) self-assess on the processes they engaged in and to reflect on what was easy, difficult, confusing and to assess the product they produced e.g. literature response log; (b) evaluate their performance in relation to the quality and nature of their interaction in the group and to consider if their goals were achieved. Hoyt and Ames (1997, cited in McLaughlin, 2003, p.25) contend that 'self-reflection offers students an opportunity to be actively involved in internal conversations while offering teachers an insider's view of the learning and the student's perception of self as learner.' Providing these reflective opportunities at the end of the lesson thus allows the teacher to gain an insight into student thinking and learning and promotes metacognitive learning for students. After reflection, students are encouraged to set goals for themselves for future lessons. Involving students in this aspect leads to higher motivation and responsibility for learning (Hill

& Ruptic 1994, cited in McLaughlin, 2003) both of which are also critical aspects of learning and can determine whether or not students transfer their strategies to independent activities.

4.4 Writing

Insights into the act of writing have come from the examination of the processes of accomplished adult writers and from qualitative studies involving children and teachers such as those engaged in by Graves (1983, 1994), Calkins (1984, 2003) and Atwell (1998). Neuman and Shanahan (1997, p.209) have suggested that the work of Graves had a profound effect on the teaching of writing is the USA and abroad since it was first published in 1981. They included it in their list of most influential studies in literacy (of which there were 13) stating 'before Donald Graves's research (1981), elementary writing, if taught at all, was dominated by grammar, spelling, and usage...At a time when many teachers were wondering what to do with this long neglected aspect of the curriculum, Graves's research dramatically created an attractive approach to elementary writing instruction'. Furthermore they contend that he and his students (many of whom went on to become influential in the field of writing: Calkins, Giacobbe) illustrated through their careful observations of classrooms engaged in the act of writing that young children could write and engage in the same processes of professional writers.

The Hayes-Flower model of writing (1980) and the revised Hayes (1996) model have endeavoured to depict the relationships between these processes in models that capture the complexity of the act of writing. They describe the physical and social influences that impact on the writer and conceptualise this as the task environment. The major cognitive processes involved in writing: planning, translating (text generation) and reviewing (revising and editing) are included in the models as is the central role of working and long-term memory. Affective and motivational factors are also seen as major influences on the writing process. Berninger and Swanson (1994) have adapted the original Hayes-Flower model to illuminate the processes of writing and the particular challenges they pose for children (see Figure 4.1). As can be seen, three major influences on the writing process are depicted. Firstly, children's self-confidence and beliefs influence how

they will approach the act of writing. Those with strong feelings of self-efficacy will respond well to the challenge. The motivation to write can be supported by providing autonomy for children in choice of writing topic as can instruction in strategies that will help the child with each of the major processes involved. A supportive classroom environment will also enhance motivation as children receive praise and encouragement for their efforts. The provision of a social context whereby children have an audience for their work outside of themselves is also a powerful motivator. As Hayes (1996, p.5) suggests 'writing is a communicative act that requires a social context and medium. It is a generative activity requiring motivation and it is an intellectual activity requiring cognitive processes and memory' and this is true for children as well as adults. Planning for writing will be influenced by the child's knowledge of the writing topic, knowledge of genres and understanding of audience. While it is important to demonstrate to children how to choose topics on which to write and how to plan for them, it is also important not to confine children to a rigid planning process as planning is also an on-line aspect of writing occurring as the writing is in progress. Indeed Grainger et al. (2005, p.15) suggests that 'the nature of the final piece, however, will not always be known at the outset and the mental and practical activities through which the writing evolves need to remain open to the unexpected and be perceived as part of the creative process.'

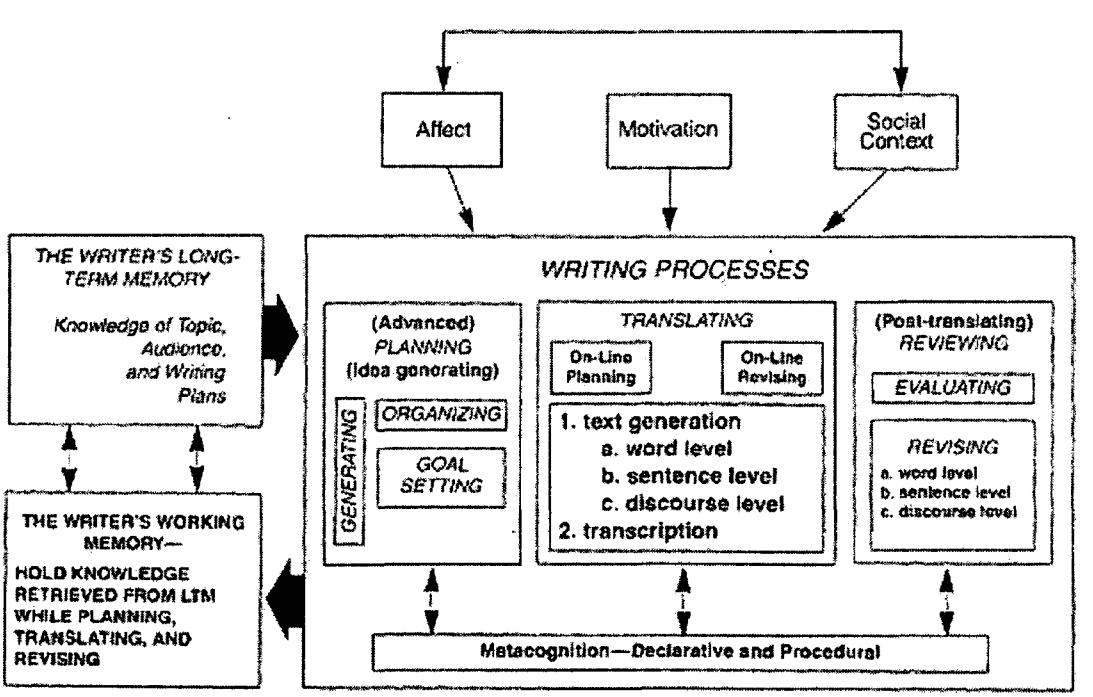


Figure 4.1 Berninger and Swanson (1994) adaptation of the Hayes-Flower model (1980)

Berninger and Swanson outline the challenges that young children face especially in the translating and evaluating stages of writing. At the translation stage, depending on their stage of development, children are still grappling with transcription (physical formation of letters) and the basic skills involved in writing words, sentences and paragraphs and the capacity of their working memory is affected. How adept they are at these aspects depends on how automatic and fluent their phoneme-grapheme knowledge is and how large their bank of sight vocabulary is. The less developed and automatic these elements are, the more demanding will be the act of capturing one's thoughts on paper. The effort involved in sounding out and recalling the shapes of the target letter or word and putting it on paper can be challenging for young children to the extent that they may have less capacity available to them to engage in planning and in revising writing and it may affect output. Putting strategies in place to help children with these mechanical aspects of writing is essential and can free them up to concentrate on the content of their writing. This can be done in a series of mini-lessons teaching children how to stretch out the sounds of words and match them to letters and record them on paper (Graves 1994; Calkins, 2003). Establishing an alphabetised word wall for high-interest and high-frequency words is another valuable aid (Fountas & Pinnell, 1996). By communicating to children that you are most interested in what they have to say and that they can work on these skills when publishing can relieve anxiety and increase children's confidence. Evaluating one's writing is a higher-level skill and requires a sense of audience. Accomplished writers consider their choice of words and add and delete sentences and paragraphs as they try to shape the writing to match the original intention seen in the mind's eye. These processes may not come naturally and may require repeated explicit demonstrations for children with plenty of opportunities for practice and experimentation. As has been outlined in relation to reading development developing strategies to a metacognitive level is essential for self-regulation and for storage in long-term memory so they can be utilised when need is perceived.

Graves' (1983, 1994) and Calkins' (1984, 2003) research has illustrated the necessity of blocks of time for the teaching of writing and suggest it needs to occur daily for at least 30 minutes, though Calkins argues for a longer period. Recognising the importance of autonomy in motivation and engagement they suggest giving control of choice of writing topic to children who will have more to say about

something in which they have chosen to write and have experience of. Graves suggests that when time and choice are predictable elements of classroom life, children engage more deeply and will enter into what he terms 'a constant state of composition,' which in effect means they will invest in thinking time outside of school and will come to school prepared to write. Both he and Calkins suggest that children should be taught the 'craft of writing' by focusing on the writing of real authors. As children examine the techniques of authors they come to notice the qualities of good writing and begin to borrow these techniques for their own stories and texts. Explicit modelling and demonstrating of these techniques through think alouds are critical aspects of their classroom models as children are taught to consider their word choice, sentence structure, character development, leads and structure of text and work to write with clarity and originality in developing a piece of writing to match their inner vision of the piece. In this way reading and writing are seen as reciprocal processes that support and strengthen each other. Children read quality literature with a writer's eye and evaluate how an author captures the attention of a reader. When evaluating their own writing they adopt a reader stance and consider how powerful the piece is and whether the words conjure up their original intention as they wrote. Learning the craft of writing in this way builds a child's knowledge of sophisticated syntactical structures and broadens their vocabulary and helps them develop the word consciousness outlined earlier in relation to vocabulary development. A high premium is put on helping children develop their own 'voice' which Graves (1994) has suggested is the 'imprint of the self on the writing, the dynamo in the process that sustains the writer through the hard work of drafting and re-drafting'. Grainger et al. (2005, p.2) too states that 'if children's writing is to demonstrate their creativity, individuality, voice and verve, then the seeds of their stories and other forms of writing need constant nurturing and support as well as time to evolve and reverberate.' Graves (1994) and Calkins (2003) also emphasise the need to work with the writer as s/he engages in the act of writing. This involves the use of conferences with individuals and/or small groups of children as they are composing. The key is to respond to the writer and resist the urge to 'fix' all you see wrong in a piece of writing. A good conference is 80% child talk and 20% teacher talk and the teacher's job is to nudge details from the writer, understand what the writer is trying to do and scaffold them in doing so. This is in direct contrast

to traditional approaches whereby the teacher responded to the product and corrected it after it was completed.

All who work with children acknowledge the delicate balance between creativity and skill work. Graves and Calkins suggest that lower level skills should be taught when children demonstrate a readiness for the skill in their writing and skills such as punctuation and grammar should be taught in small groups. Graves terms these skills 'conventions' of writing and suggests demonstrating to children that they are signposts that enable the reader to read the writing as the author intended. In this way children begin to see punctuation marks as purposeful and begin to understand how they contribute to fluent reading as outlined earlier and also to internalise when and how to apply them to their own writing. In addition, Graves and Calkins suggest that not everything a child writes should be revised and that children's knowledge accumulates through mini-lessons and appears in subsequent pieces of writing not always the one in which they are working on when the mini-lesson is delivered. They suggest revising and proof-reading for publication at regular intervals and that children should choose a piece from their writing folder to polish up and correct, after being taught how to critique and evaluate their writing. Partner work for the revision and editing process has also been shown to be effective in the research literature (Younger et al., 2002).

Thus the teaching of writing as a process differs significantly to more traditional methods of teaching writing. It requires blocks of time which allow for deep engagement and time for writers to 'talk, to read, to play, to imagine and inhabit, to dream, ponder and share ideas as well as to draft and reconstruct' (Grainger et al., 2005, p.23). The focus is firmly on the writer, on helping him/her to develop their creativity as well as their skills which are taught in meaningful authentic ways through demonstrations and conferences as they are engaged in act of writing. Lower level skills are kept in perspective and taught as the learner shows a need and readiness for them and instruction is embedded in the child's writing rather than communicated in isolated skill and drill in workbook pages. Writing is social, purposeful and shared with an audience other than the writer and teacher. It can be highly motivating and empowering for the learner.

4.5 Motivation and Engagement in Literacy

While the preceding sections have summarised the cognitive skills and strategies that are integral to the literacy process, research has also shown that a student's motivation, engagement and confidence in themselves exerts a powerful influence on their academic achievement. Motivation to engage with academic tasks is influenced by beliefs of self-efficacy. Bandura (1995, p.2) argues that

> Perceived self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations. Efficacy beliefs influence how people think, feel, motivate themselves and act.

It is important then for teachers to build children's confidence in themselves and to structure learning tasks in such a way as to ensure that children experience success, yet provide enough of a challenge to engage them. Therefore tasks should be within the child's 'zone of proximal development' (Vygotsky, 1978). Bandura (1995, p.3) also points out: 'successes build a robust belief in one's personal efficacy'. Children's self-confidence can be fostered through the use of instructional techniques such as the gradual release of responsibility model (Fielding & Pearson, 1994) outlined earlier, which ensures that responsibility for a task is handed over to a child only after collaborative scaffolded and guided practices. In addition, teachers can build success by ensuring that children are matched to books at their instructional level for guided reading. Children who have positive self-perceptions are more likely to persist at tasks and to believe that if they utilise all of their strategies that they can succeed at a task whereas children of the same ability level who have a negative image are likely to give up more quickly. Teaching children strategies both for word identification and comprehension are essential aspects of literacy learning as they provide opportunities for children to develop independence in learning which in turn enhances self-efficacy.

Guthrie and Anderson's work (1999) on cultivating engagement in literacy highlights a number of key emphases in a literacy programme which when present can lead to high levels of engagement. These include a focus on conceptual learning alongside a focus on strategies, a classroom environment where meaning is socially

constructed and supported through collaborative work and a classroom where students' interests are capitalised upon and where choice and self-regulation are promoted. They define reading engagement as 'the joint functioning of motivation, conceptual knowledge, strategies and social interaction during literacy activities' (1999, p.20), all of which operate in an interactive and dynamic fashion. Social interaction can be fostered in many ways. In writing workshop, children can discuss their writing topics, collaborate in writing stories, work together to revise and edit a piece of work and share their writing product with the whole class. Guthrie and Anderson suggest that 'when students can talk to each other about their writing, they learn an acute sense of audience and authorship' (1999, p.36). In reading instruction, teachers can promote dialogue by providing opportunities for children to engage in higher-order discussion of texts before, during and after reading where they question, explain, defend opinions evaluate and engage with text at a deep level strengthening students' conceptual learning.

Other research has indicated that giving genuine control to children to direct their learning (Jeffrey & Woods, 1997, 2003; Cambourne, 2002) has a positive impact on their motivation and creativity. Therefore, allowing choice for students in terms of selection of books for independent reading and choice in picking a topic to write about will contribute to enhanced motivation and ensure relevance for the learner. Additionally, choice can be provided in the range of tasks devised by the teacher to reinforce learning, in the forming of collaborative groups and partnerships to carry out tasks and in the setting of personal goals.

Pressley et al. (2003) studied 25 primary grade classrooms (grades one, two, and three) to learn about motivation and engagement in literacy. Of these 25 classrooms, they concluded that five of the teachers were exceptional at motivating and engaging their students so that most of the students were engaged in academically stimulating and challenging tasks most of the time. They summarised their findings under three main categories: (a) physical and psychological environment; (b) classroom instruction and content; and (c) classroom management. They identified 49 characteristics associated with these highly motivating teachers. While space does not permit a full treatment here, (see p. 77-79, Pressley et al., 2003), the most highly engaging teachers consistently exhibited many of these features every hour of every day. The physical environment was full of books

capitalising on student interests and spanning a range of levels. The walls and bulletin boards were filled with records of student learning and useful teaching tools. A warm positive atmosphere was created which communicated to students that they were valued members of the classroom and they were encouraged to regulate their behaviour. Clear and high expectations were communicated to students and they were encouraged to persist at challenging tasks and to take risks to learn. As they engaged in tasks teachers provided feedback. Co-operation was encouraged and competition minimised and students were encouraged to be independent and make choices. Instruction included strategy instruction, critical thinking, the development of curiosity and suspense, co-operative learning and connections across the curriculum. A concrete hands-on fun approach was taken. There was scaffolding, monitoring of application of strategies and progress and plenty of encouragement and praise evident. Lessons were brisk but paced well with a clear rationale communicated to students and there were predictable routines and procedures. While providing a motivating and engaging learning experience on a daily basis is clearly complex and demanding, it is vital for promoting self-efficacy, enhancing achievement and developing young readers who not only can read and write but choose to.

4.6 Classroom Models

A common characteristic of classroom models of literacy is the large allocation of time given to developing literacy. In Ireland, four hours a week is provided for in the curriculum guidelines while in the UK the literacy hour has been in place for some time. In the USA a ninety-minute block is considered to be a minimum requirement and, if acceleration in literacy is required between two and three hours per day is recommended (Shanahan, 2001; Calkins, 2001; Fountas & Pinnell, 1996, 2001). When one considers all of the essential skills for literacy outlined in the research above, it is clear that to teach them well and incorporate them all into a literacy programme requires consideration of balance and blocks of uninterrupted time. This is necessary to foster the deep and thoughtful engagement that will contribute to development of reading and writing as life-long habits. A number of classroom models exist, many of which have similar features. All provide several different

contexts for the development of reading and writing skills, strategies and motivation (see Table 4.2) and are utilised according to the stage and development of the child and the purpose of the lesson in question. The essential skills for literacy are then taught within these contexts in meaningful and authentic ways. Word work in particular may be taught in discrete sessions but is always applied within these contexts so children understand the meaning and purpose of what they are doing.

Table 4.2 A Balanced Literacy Framework: (adapted from Ohio State University, Fountas & Pinnell, 1996)

Reading	**Writing**
Reading Aloud *(Adams, 1990; Goodman, 1984)*	Shared Writing *(Goodman, 1984, Holdaway, 1979; Sulzby 1985)*
Shared Reading *(Holdaway, 1979; Teale and Sulzby, 1986)*	Interactive Writing *(Johnson et al., 1996; Pinnell & McCarrier 1994)*
Guided Reading/Reading Workshops *(Clay 1993; Routman, 1991; Fountas& Pinnell, 1996; Calkins, 2001)*	Writers' Workshop (Atwell, 1987; Graves, 1994; Calkins, 1986)
Independent Reading *(Meek, 1988; Clay 1991)*	Independent Writing *(Bissex, 1980; Goodman, 1984; Harste et al., 1984)*

The importance of autonomy, choice and control for children in their learning is recognised in these models as time is built in for independent reading and writing allowing opportunities for children to self-regulate and practice applying skills independently. Reading aloud is an integral part of the framework, for as Mem Fox, well-known children's author, notes (cited in Calkins, 2001, p.51) children should have the 'constant good fortune of hearing great literature beautifully delivered into the ear and from there into the heart and from the heart into the bones.' Shared reading is another form of read-aloud and is also used with emergent readers to teach early reading skills such as concepts of print, sight vocabulary, phonological and phonemic awareness as well as developing vocabulary, comprehension and story structure. Shared and interactive writing are utilised to connect reading with writing with the teacher modelling the process by scribing children's ideas in the former and 'sharing the pen' with the children in the latter. Guided reading is at the heart of the balanced literacy framework and here children are matched to a text at their

instructional level of reading. Levelled texts are usually used. These are fine grained, increasing slightly in difficulty as one travels through the levels. Calkins (2003) suggests that they are especially effective with emergent readers, beginning readers and struggling readers at these levels who are still learning to take both meaning and print into account and need to learn to crosscheck these two sources of information. Thus, they are particularly useful in helping children develop application of the three cueing systems. In particular, in published sets, such as those used in Reading Recovery (Clay, 1993) there are usually 10 books available at each of 30 levels, providing the teacher with a lot of choice for matching children to text. In addition, children can gain confidence at a level by reading three or four texts before progressing up to the next level. It is not envisaged that children would read all ten books in a level before progressing to the next level. The practice of using levelled texts is widespread even if schools are not involved in Reading Recovery. There are many publications available that help teachers to match books not included in the Reading Recovery programme to a given level. Calkins (2001) and Fountas and Pinnell (1996) argue that the Reading Recovery levels are too fine grained for the regular classroom and have suggested combining several levels together and colour coding them. Thus there is a range within a colour code. This is particularly useful for independent reading as children can be encouraged to pick books from, e.g. the red box which may correspond to levels one, two, three in Reading Recovery. Teachers match children to books using running records and interpret the running record to ascertain the strategies children are using and to determine where they need help. This tool can also assess fluency and comprehension and can be used to group children. Groups are kept dynamic and flexible (Fountas & Pinnell, 1996) and change according to the children's needs.

There are several differences between guided reading and traditional reading approaches which utilise a basal reader. Vocabulary is usually pre-taught in basal reading programmes and a couple of pages of text a day are worked through with a group of children. Children take turns reading aloud for the teacher and practise the text at home. Basal schemes usually have a small number of texts per grade level. In guided reading on the other hand, the teacher does a book introduction to scaffold children's reading for the text of the day. They then read the complete text through usually silently or in a whispering tone of voice. They are expected to problem solve

words and the teacher observes what she sees the children do and makes notes for a brief teaching point at the end of the lesson. She may ask a child to read aloud a portion of text while the rest of the children read silently. Early finishers are asked to re-read the text for fluency and be ready to discuss their favourite part of the story. A teaching point is made at the end of the lesson whereby the teacher may demonstrate how she figured out how to read a tricky word she saw children get stuck on. Then children are asked to find the word in the text and to try out the strategy. The focus is on comprehension of the story and practice of strategies. Fountas and Pinnell (1996) suggest that guided reading sessions should take about 30 minutes and groups should be rotated while the rest of the class is involved in literacy work in a variety of centres.

Calkins (2001), on the other hand, takes a different approach. She argues that the time spent in reading centres completing activities would be better spent reading connected text. She recommends using a workshop approach much like a writing workshop. Children are matched to texts and assigned reading partners who are at the same level. The workshop begins with a mini-lesson with children gathered at the meeting area in the classroom in which the teacher demonstrates a strategy using a four-step sequence. The first is the 'connection' where the teacher names and explains the strategy, why it is useful and when to use it, thus building children's metacognitive awareness. The second stage is the explicit teaching of the strategy done through a think aloud. Children are encouraged to observe closely, to spy on the teacher and then to feed back to her what they saw her do. In stage three, which Calkins calls 'active engagement,' children turn to their partner and actively try the strategy as the teacher circulates and checks for understanding. A few children then share what they did. The last step is the 'link' where the lesson is linked to the ongoing work of the reading workshop and children are invited to find a spot in the classroom with their partner and work on applying the strategy to their own text. Next, while children are actively involved in reading with a partner, the teacher may choose to take a guided reading group for 10-15 minutes or may convene two or three sets of partners together for reinforcement of a strategy that the teacher has noticed they need help with. A text is chosen to suit the strategy and the level the children are at. Midway through the workshop there is a brief sharing of how children are managing the new strategy. Next children work independently on a text

and the teacher circulates conferencing, scaffolding, coaching and assessing. The workshop concludes with a whole class share and reflection. As children grow stronger, literature circles and book clubs centred round themes and author studies are introduced. A range of genres is engaged in throughout the year and as children read in a genre they also write in the genre.

The writing workshop is conducted in much the same manner and is the primary vehicle for teaching the craft and skill of writing. It begins with a whole class mini-lesson as outlined above and then children retire to their desks to write. Children choose their own topics on which to write but over the course of the year as they are introduced to various genres they are expected to write in a particular genre. As with the reading workshop the session concludes with a share session. Writing is seen as an apprenticeship and the teacher's job is to help the children develop the art of writing.

It is essential that classroom models strike a balance between the teaching of skills and strategies within authentic contexts while attending also to the development of children's motivation and engagement. As the review of the No Child Left Behind Act (Gamse et al., 2008, see chapter one) has shown attending only to the 'what' of teaching literacy is unlikely to make a difference, the 'how' is just as important. Children need to discover that reading and writing are ultimately meaning-making activities that are purposeful, pleasurable, fulfilling and understand that they are tools to be used to explore, amuse, create, learn, discover and pursue personal goals and interests.

5 RESEARCH DESIGN OF THE STUDY

This chapter is divided into ten sections. First, the research questions are described and located within the Irish context and in the context of international research in literacy referred to in the literature review. Second, a rationale for using a mixed methods study to explore the research questions is set out. Third, the sample involved in the study is described, along with the procedures for gaining access. Fourth, ethical considerations are outlined with reference to the participants involved in the study, including the researcher. Sections five to eight describe various data gathering instruments used in the study and the methods used to collect, manage and analyse the data. Section nine indicates how the overall interpretation was arrived at. The chapter concludes with a discussion of measures taken to ensure the trustworthiness of the data.

5.1 Conceptual Framework Leading to Research Questions

The magnitude of the achievement gap between children in schools designated as disadvantaged (broadly equivalent to Band One Urban in the Delivering Equality of Opportunity Schools Strategy (DEIS, DES, 2005a) and their peers in non-designated schools has been well documented (Eivers et al., 2004; DES, 2005b; Weir, 2003). Despite significant government investment in designated disadvantaged schools in terms of staffing, resources, a range of initiatives and the introduction of a revised English curriculum in 1999 with in-service support, the achievement gap in literacy between children in areas of low socio-economic status and their more advantaged peers remains large in Ireland. As outlined in the literature review, many schools internationally have managed to 'beat the odds' and narrow this achievement gap in literacy. The main focus of this study was the exploration of how this might be achieved in an Irish context. It was also clear from the limited amount of observational research done in the Irish context that much of the international research on best practice in literacy instruction had not filtered through to teachers and that there were many gaps and weaknesses in classroom programmes for literacy

(DES, 2005b, 2005c). This led to the development of two broad research questions as already outlined in chapter one:

1. How might a disadvantaged urban school with large numbers of children underachieving in literacy improve the literacy achievement of those children?

2. How might a research-based best practice balanced literacy framework be designed and implemented in collaboration with the staff of a disadvantaged school?

These questions were further elaborated on and led to the development of particular foci of inquiry throughout the study:

1. What conditions, resources and kinds of professional development would need to be put in place in order to support teachers in changing their current classroom practice to that of a research-based best practice framework?

2. How would teachers respond to the challenges and how would their knowledge base and practice change over time?

3. How would the changes in instruction impact on:

   a the children's motivation and engagement with literacy and their knowledge of literacy strategies?

   b their achievement on standardised tests of literacy?

4. In what ways were parents involved in their child's literacy development and what perspectives would they hold about their child's motivation and engagement with literacy during the study?

As Cohen and Mannion (2003, p.73) point out, 'research design is governed by the notion of "fitness for purpose"' and it is with this in mind that a mixed methods study was deemed the best fit for the exploration of these complex research questions which were explored over the two years of the study. The rationale for this is outlined in the next section.'

5.2 Rationale for the Use of Mixed Methods

Creswell and Plano-Clark (2007) outline three characteristics of mixed methods research. Firstly, a mixed methods study involves the collection of both qualitative and quantitative research data. Secondly, the data are collected either concurrently or sequentially. Finally, the data are mixed at one or more stages of the research process. Tashakorrie and Teddlie (2003a), differentiate between mixed method and mixed model research. In mixed method studies there is a marginal mixing of the data and often the emphasis of approach or weighting is either predominantly qualitative or quantitative. On the other hand, mixed model research involves mixing both approaches at many or all steps of the research study from research questions to data collection and analysis to interpretation, as was the case with this study. Mixed methods (plural) is a cover term used to encompass both mixed method and mixed model.

5.2.1 Strengths of mixed methods research

Choosing which approach to take depends on the nature and scope of the research questions. When multiple questions are asked that cannot be adequately answered by one approach alone, a mixed methods approach is warranted. In addition, researchers advocating mixed methods argue that a mixed methods approach is often better for a number of reasons. Firstly, they suggest that the combination of both quantitative and qualitative data in a study provides opportunities for a better and deeper understanding of the research questions than the use of data alone. Tashakorrie and Teddlie (2003a) contend that '*a major advantage of mixed methods research is that it enables the researcher to simultaneously answer confirmatory and exploratory questions and therefore verify and generate theory in the same study* (p.15 italics in original). Researchers in effect are given permission to use all tools at their disposal to comprehensively understand the research problem. Secondly, mixed methods researchers suggest that, by combining approaches, the inherent weaknesses of one approach can be offset by the strengths of the other. Thirdly, mixed methods provide opportunities for the presentation of divergent views, particularly when the qualitative and quantitative analyses yield different or contradictory conclusions. Erzberger and Prein (1997, cited in Tashakorrie & Teddlie, 2003a, pp.16-17) argue

that 'research findings can converge, which can be seen as an indicator of their validity; secondly, they can generate a new comprehension of the phenomenon by forming complementary parts of a jigsaw puzzle; or, thirdly, they can produce unexplainable divergence leading to a falsification of previous theoretical assumptions'. This result can challenge the researcher to re-examine the data or to re-consider previous assumptions or may suggest the need for further investigation of the phenomenon.

5.2.2 Paradigmatic issues in mixed methods research

Another feature of mixed methods studies is the nature of the worldview or paradigm underpinning the approach. Historically, quantitative research is rooted in the positivist and post-positivist tradition and was the dominant research approach for the first 70 years of the 20th Century. Criticisms of positivism and its limitations abounded from the 1970s onwards and a wide variety of methods was advocated instead. This led to the development of qualitative research methods and the emergence of constructivism as an alternative worldview which in turn led to what has become known as the 'paradigm wars'. Proponents of each tradition cited their own epistemology, axiology and ontology and purists of each approach argued that each paradigm was therefore separate and could not be mixed. The 'incompatibility thesis' was born. With the emergence of mixed methods research as a 'third movement' in the 1990s (Tashakorrie & Teddlie, 2003), the search was on for a paradigm that could include both approaches. However, in the publication of the first handbook of mixed methods research (Tashakorrie & Teddlie, 2003), a number of different perspectives are presented on the issue of paradigms. Some scholars believe that a single paradigm should be the foundation of mixed methods research. The three most frequently cited paradigms in mixed methods research are (a) pragmatism (Patton, 2002; Tashakorrie & Teddlie, 2003a, 2003b; Rocco et al. 2003; Burke Johnson & Onwuegbuzie, 2004); (b) the transformative-emancipatory paradigm (Mertens, 2003) and (c) critical realism (Robson, 2002). Several scholars reject the search for a single paradigm and maintain that in reality all paradigms have something to offer (Greene & Caracelli 2003; Maxwell & Loomis, 2003). They advocate a dialectical stance, thus intentionally engaging multiple perspectives and

assumptions. The notion of multiple paradigms has gained currency and popularity and indeed even some of the old warriors or purists are now advocating the use of multiple worldviews (Lincoln & Guba, 2000). A minority advocate an a-paradigmatic approach maintaining that the paradigm discussions are distracting and unnecessary. As this study was informed by pragmatic and transformative-emancipatory perspectives they are further outlined in the next section.

Paradigms in the study

According to Cherryholmes (1992), pragmatism has a long and distinguished history, dating back to the work of Peirce, James and Dewey. Pragmatists take a balanced and pluralistic position and are interested in discovering 'which action to take next as one attempts to better understand real-world phenomena (including psychological, social and educational phenomena' (Burke Johnson & Onwuegbuzie, 2004, p.17). The 'dictatorship of the research question' is paramount and the decision as to which method(s) to employ is based on the questions and how best to answer them, rather than on allegiance to a particular world-view (Tashakorrie & Teddlie, 2003b). The question to be asked is which research approach will be most useful in answering the question and will illuminate it in all its complexities contributing to an enhanced understanding of the problem. Burke Johnson and Onwuegbuzie (2004) present a number of characteristics of pragmatic philosophy. Firstly, they suggest that pragmatism offers a middle ground between the post-positivist and constructivist world views, rejecting the incompatibility thesis and the dualisms inherent in both, and embracing both e.g. knowledge is viewed as being constructed and based on the reality of the world we live in. In addition, knowledge is seen as fallible, in that it reflects our current understandings and beliefs and is never viewed as absolute. Therefore:

> our thinking follows a dynamic homeostatic process of belief, doubt, inquiry, modified belief, new doubt, new inquiry.... in an infinite loop where the person or researcher (and research community) constantly tries to improve upon past understandings in a way that fits and works in the world in which he or she operates. The present is always a new starting point (p.18).

Thus knowledge is seen as tentative, provisional and subject to change over time. Furthermore, pragmatism embraces a value-oriented approach and endorses the shared values of democracy, freedom and equality. Moreover pragmatists prefer action to philosophising, are creative in their approach and willing to experiment with a range of ideas to investigate what works to solve problems. Pragmatism, therefore, presents a very practical and applied research philosophy.

In relation to the differences between the transformative-emancipatory paradigm and pragmatism, Tashakorrie and Teddlie contend that the most basic differences are in relation to axiology. They argue that the researcher working within the transformative-emancipatory paradigm chooses research topics 'that may directly help an oppressed member of society....seeing social justice for marginalised groups as the goal of research' (p.677-678) while the researcher working within the pragmatic paradigm chooses topics of interest to him or her and which may or may not involve issues of social justice. Moreover, they argue that the goal of all research is not only about creating more just societies but that researchers may just have a genuine curiosity about a particular phenomenon and wish to investigate it. Mertens (2003) would suggest that the differences run deeper and that there are discernible differences between the two paradigms in relation to the formulation of the research questions, the methods employed to investigate and the analysis and interpretation of results. As the goal of researchers working in this paradigm is to improve the lives of those under investigation, the nature of the questions asked should be balanced and not phrased in ways that further contribute to negative and deficit views of the participants. For example, in education:

> framing the problem of poverty and underachievement of children in poor urban and rural areas in terms of social deficiency or cultural deficits rather than in terms of the marginal resources of their schools and the racialised politics of local, state and national governments (p.144).

Therefore questions should seek to investigate what aspects of the environment or culture are acting as barriers to change. In relation to epistemology, she argues that objectivity is an issue. Researchers working in this paradigm should spend considerable time in the field with the participants, building trust with them, and

gaining an accurate picture of their multiple realities. She argues that, in order to gain an in-depth understanding, it is vital:

> ...for the researcher to be involved in the communities to be affected...by the programme, service or policy to a significant degree. This epistemological assumption underscores the importance of an interactive link between the researcher and the participants, with sensitivity given to the impact of social and historical factors in the relationship between the researcher and the participants as well as the impact of those variables on the construction of knowledge (p.141).

In relation to ontology, Mertens also contends that there are diversities of viewpoints in relation to social realities which must be placed within political, cultural, historical and economic value systems in order for informed understanding to occur. In addition, the kind of data collected should seek to contribute a valid picture of the community being studied. Finally, findings need to be presented in a way that will affect policy and work to improve the lives of the participants.

This study was conducted through both a pragmatic and transformative-emancipatory lens. Research questions were framed to shed light on the persistent social problem of underachievement in literacy of children from disadvantaged backgrounds. The researcher spent considerable time in the field in order to build an accurate picture of the environment, culture and perspectives of the participants at several levels i.e. the school and classroom, the community and the children themselves. Government policy is formulated at a distance from the recipients and as such is not always in touch with reality on the ground. It has focused primarily on investment and resources rather on the development of the expertise of classroom teachers to a high level and to date has not been successful in narrowing the achievement gap. The researcher sought to explore alternatives by entering the field and collaborating with participants to find a more promising approach. Participants were involved in collaboration with the researcher to investigate how best to improve achievement in an Irish context using the current research base, and a mix of methods was utilised to capture the complexity of the problem. A creative and experimental approach was taken with the participants active in shaping the process of change. The expertise and self-efficacy of the participants was cultivated throughout. Interpretations and conclusions were arrived at by mixing and integrating

the data. Conclusions were stated in a manner that would be useful for the formulation of future policy with the ultimate aim of improving provision for disadvantaged schools, mindful that 'truth is not stagnant' but evolving (Burke Johnson & Onwuegbuzie, 2004, p.18).

5.2.3 Typologies of mixed methods

Creswell & Plano-Clark (2007, chapter four) present a classification of mixed methods designs. The choice of which to use in a study depends on the research problem. They identify four major types: (a) the triangulation design; (b) the embedded design; (c) the explanatory design; and (d) the exploratory design, as well as a number of variants in each. The purpose of the triangulation design is 'to obtain different but complementary data on the same topic' (Morse, 1991, cited in Creswell & Plano-Clark, 2007). Creswell and Plano-Clark (2007, p.62) suggest it is used when 'a researcher wants to directly compare and contrast quantitative statistical results with qualitative findings or to validate or expand quantitative results with qualitative data'. The procedures involve the parallel but separate collection and analysis of data in order to better understand the research problem. It is a one-phase design and the qualitative and quantitative methods are both given equal weighting. The researcher then merges the two data sets usually by making an overall interpretation based on both data sets. The fourth variant of the triangulation design was used in this research: the Triangulation Design: Multilevel model. In this model, qualitative and quantitative data are used to address the research questions aimed at different levels within a system.

In the current study (see Figure 5.1), the issues of interest are the factors within each level influencing the literacy development of children in disadvantaged schools and the development of the change process at each level. For example, at level one the actual achievement of the children in literacy is a factor combined with their self-esteem, motivation and engagement in literacy activities as well as their attendance and ability to self-regulate their learning. In order to investigate these issues, individual semi-structured interviews were conducted with five children in each class at three points and a range of achievement data was collected on each child (56 children) in order to track progress in literacy. At level two, school and

classroom level factors interact and impact on reading achievement. School level factors would include the school climate, school plan for literacy, level of collaboration between teachers, the level of cohesion between programmes and the whole school organisation for reading. Classroom level factors would include the time spent on literacy instruction, the methodologies used for word identification and comprehension, assessment procedures, differentiation, the materials and resources utilised. To investigate these issues, a questionnaire was utilised initially and followed up with semi-structured individual and group interviews. In addition the regular group meetings were digitally recorded. Furthermore, observations of classroom practice were conducted at three points. At level three, the nature and extent of parental involvement with the school is considered in that it might impact on literacy achievement and on children's motivation and interest in literacy. While parental involvement was not a major focus of the study, parents were involved in group interviews towards the end of the study to ascertain their perspectives on their children's motivation and engagement in literacy and to explore if they had noticed changes in their children as a result of the research study. Examining issues at each level could provide an opportunity to understand how each level interacts with and influences another and to better understand the mechanisms at each level that enhance or affect literacy achievement. The current study set out to examine the factors within and across these levels that contributed to the enhanced literacy achievement of the children and to examine the effects of the implementation of a research-based approach to literacy on teachers' knowledge bases, practices, beliefs and attitudes; the level of support needed to sustain such an approach; the impact on the children's motivation and on the school as a whole, given that only one class level was involved in the study. The sequence of qualitative and quantitative data collected is detailed in Figure 5.1 and was used to inform the overall interpretation in addressing the broad question of how a school with large numbers of children underachieving in literacy might work towards raising their achievement.

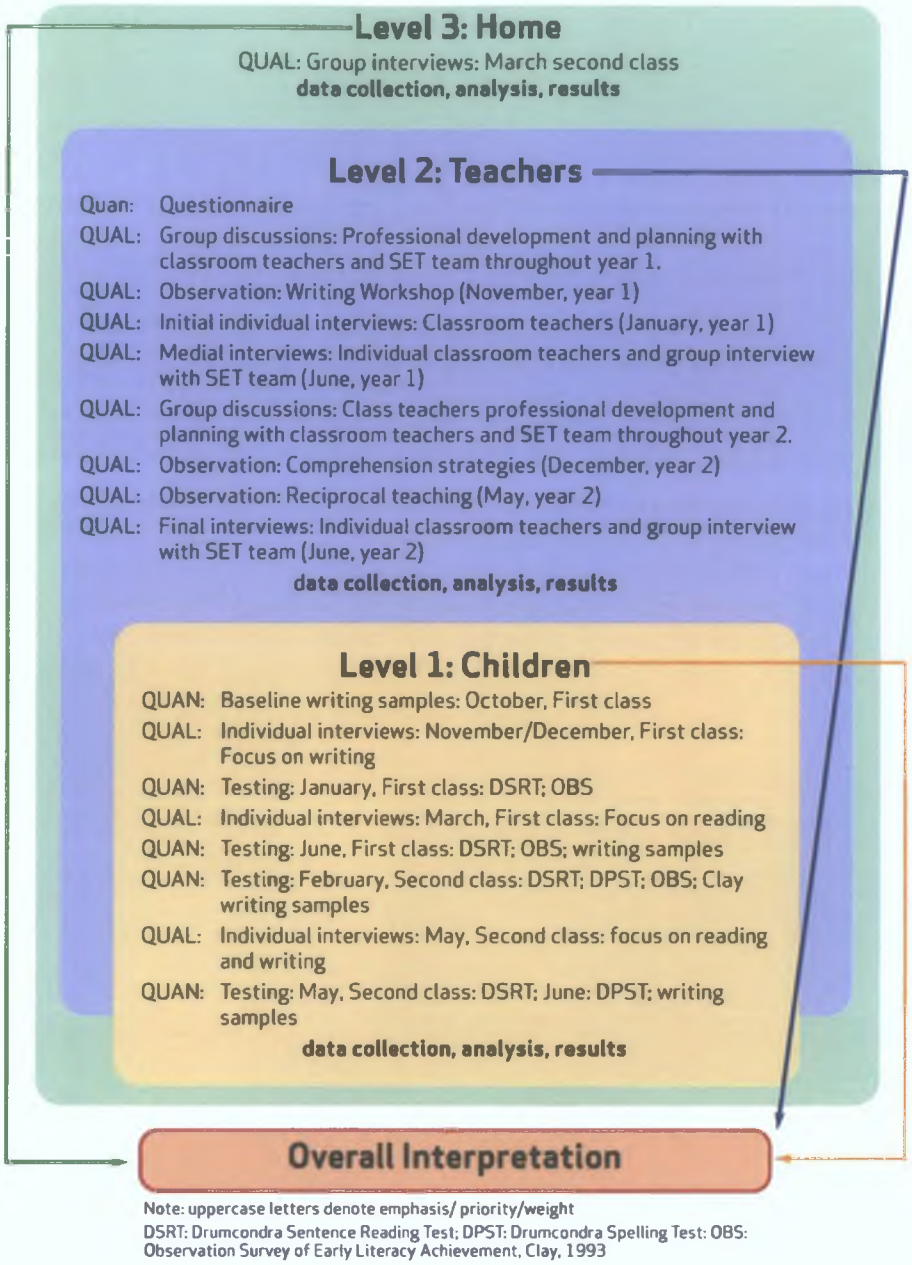


Figure 5.1 The Triangulation Design: Multilevel Model (Creswell & Plano-Clark, 2007)

5.2.4 Analysis of data in concurrent designs

Creswell & Plano-Clark (2007) present a number of guidelines for the analysis of the data arising from the mixed methods approach taken. A separate analysis is conducted for each of the data sets. The analysis procedures for both the qualitative

and quantitative data are described in detail in the relevant sections below. When merging the two sets of data, the researcher should be able to answer a number of specific questions:

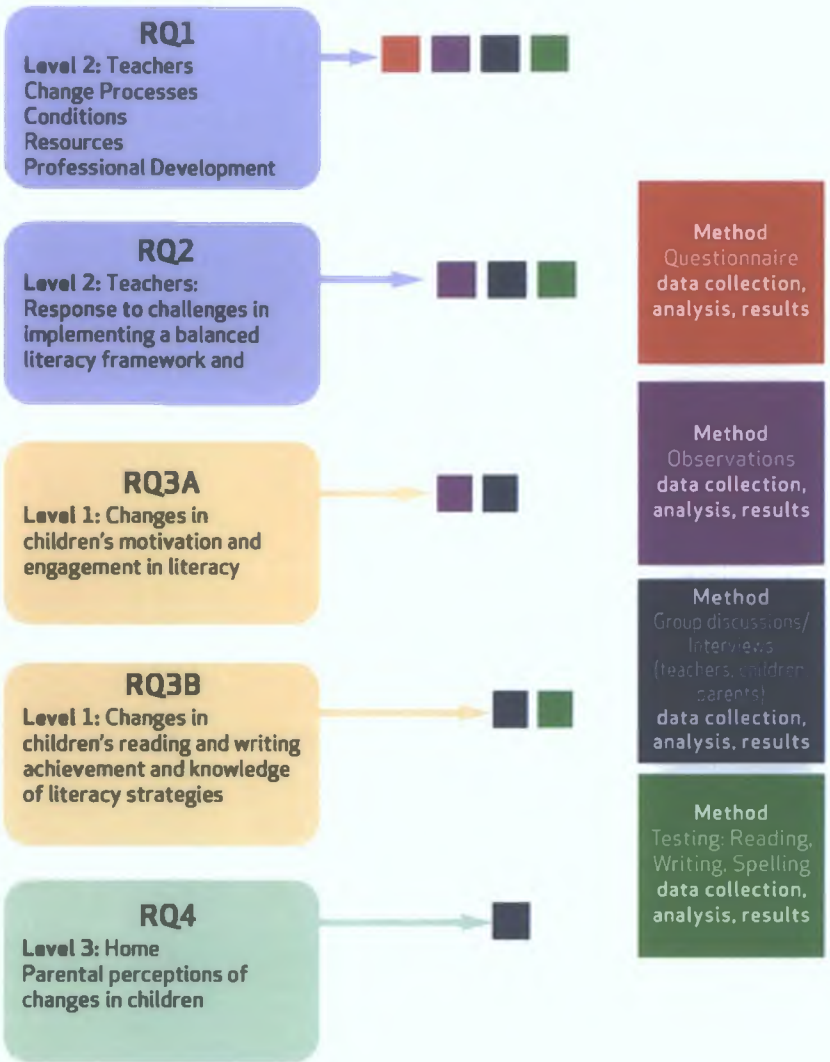
1. To what extent do the data converge, in what ways and how?

2. To what extent do the same types of data confirm each other?

3. To what extent do the qualitative themes support the quantitative results?

4. What similarities and differences exist across levels of analysis?

The use of a triangulation design allowed for cross checking of findings across different sources of information derived across the levels, leading to a verification of findings. Figure 5.2 illustrates the triangulation of the data sources and methods used in the study in relation to the research questions asked. For example, evidence for how the participating teachers had changed their instructional practices in literacy during the study was found from a number of sources: the questionnaire, the individual and group interviews with the teachers; the observations conducted throughout the study; interviews with the children and parents; and also quantitative data derived from children's work samples. Similarly, evidence for the change in children's motivation and engagement in literacy could be found in the interviews with the children themselves, their parents and teachers and from observations in the classroom. In addition, the quantitative and qualitative data gathered informed the design of the study throughout. For example, the quantitative data gathered on children (using both standardised and formative assessments) helped to inform the change process and the focus of the professional development sessions. Likewise, ongoing discussions with teachers, observations in the classroom and interviews with participants illuminated how the change process was proceeding and highlighted successes and areas in need of further support.



Figue 5.2 Triangulation of data in the study in relation to the research questions.

5.3 Sampling and Gaining Access

Purposive sampling was employed to identify and select a school to participate in the study. Patton (2002, p.230) maintains that 'the logic and power of purposeful sampling lie in selecting *information-rich cases* for study. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the inquiry....studying information-rich cases yields insights and in-depth understanding'. He goes on to identify sixteen possible purposive sampling methods. For the purpose of this study a large 'typical case' urban disadvantaged junior school

was sought. A list of designated disadvantaged schools in Dublin was obtained from the Centre for Disadvantaged Studies in St. Patrick's College. Arising from this, a number were contacted either by a visit to the site or by phone to ascertain if there was any interest in participating in a research project aimed at improving the literacy achievement of the children. The research questions were outlined and the school principals asked to discuss the proposal with staff to determine interest. Following this, a selection decision was made on the basis of the size of the school, the level of interest in the study and the level of disadvantage of the school.

The school chosen to participate in the study was in Band One of the DEIS (DES, 2005a) strategy. Like many urban areas of high socio-economic disadvantage today, the locality was created as a result of Government initiatives in the 1970s which saw large numbers of young families in the inner city moved to newly created social housing developments in the suburbs. There was minimal investment in transport, amenities and local facilities for families and this often resulted in isolation from extended family support available in the city centre. Details on the locality obtained from the 2002 census report indicate that several other factors contribute to the difficulties experienced by the residents. These include high unemployment (three times the national average) at a time of almost full employment in the economy, poor educational attainment (only 5% of adults have a third level qualification compared to the national average of 26%), large numbers of lone parents (about four times the national average), and high levels of social problems such as drug use and crime.

The school itself was a large mixed junior national school with 21 teachers and an administrative principal. It was in the Breaking the Cycle programme and as such class sizes were typically below 16 pupils per class. There were four special education teachers (SET) and a further one third of the hours of a resource teacher shared with the nearby senior school. Of the SET team, one had a dual role, as Reading Recovery teacher and as resource teacher for the Traveller children in the school. The other three teachers had more than fifteen years teaching experience each and two were new to the position. In addition, there was a home-school community liaison teacher and another teacher for a number of weekly hours allocated for early intervention. As can be seen from Table 5.1, almost a third of the teachers in the school had five years or less teaching experience (the majority of these had fewer

than three years) and almost a quarter had 26 or more years of experience. Two teachers were in their first year teaching at the school. There had been a high staff turnover in the recent past, as has been documented in other studies (Eivers et al. 2004, 2005) though a number of staff had been teaching at the school for ten or more years.

Table 5.1 Number of years experience teaching and years at the school N=17 (4 missing)

Number of years	**0-5 yrs**	**6-15**	**16-25**	**26+**
Years teaching	6	4	2	5
Years teaching in target school	7	5	4	1

In terms of qualifications, the majority of teachers had qualified with a Bachelor of Education degree and about a quarter had first gained a Bachelor of Arts degree and followed up with a graduate diploma in teaching obtained either in Ireland or the UK. Several teachers had more than one degree and two had Masters degrees.

Facilities within the school varied in range and quality. The area used for physical education was a small open space just inside the front door and was a main thoroughfare through the school making it difficult to conduct a P.E. lesson indoors, though there was access to the local community hall for P.E. sessions also. The school library had recently been renovated and was thoughtfully furnished with child-appropriate shelving and display units. There was a wide range of books including fiction, non-fiction, poetry, and good quality picture books though many of the books were at too high a level for the children to read independently. Classroom libraries were poorly stocked with a limited range of books at the right level for children to read, with most teachers reporting a stock of between 40 and 50 books. Given that Lipson et al. (2004) found that the most effective and successful schools in their comparative study of high, medium and low socio-economic status in Vermont had individual classroom libraries averaging 500 books, the stock fell far below what might be required. There was a dedicated computer room with reasonably up-to-date computers and software. Following consultation with the whole staff, it was decided to begin the change process with the four First classes (56 children: 25 boys; 31 girls), their teachers and parents. The change process would be disseminated to the whole staff through whole school planning days.

5.4 Ethics

The guidelines for reasonably-informed consent issued by the United States Department of Health, Education and Welfare and cited in Cohen et al. (2003, p.51) were followed in this study to ensure the 'subject's right to freedom and self-determination'. A first guideline is that clear explanation of the procedures to be employed in the research and their purposes are necessary. At the point of gaining access the researcher attended two whole school staff meetings; one at the end of the school year preceding the commencement of the study and another at the start of the next school year. At these meetings, the purpose of the research and the proposed research methods and data collection that would be required were outlined. At the staff meetings teachers were encouraged to ask questions and voice issues and any concerns that they may have had. A third guideline is the communication of the possible benefits that the participants might reasonably expect from engaging in the research. Thus, the likely benefits for this study were: the enhanced literacy achievement, engagement and motivation of the children; the further development of teacher expertise; the opportunity for the school to engage in research to shed light on a national problem; how best to change the literacy outcomes for children in urban disadvantaged schools; and finally an opportunity to provide improved resources in the school. Once the staff had consented to participate, the permission of the Board of Management was sought. A further meeting was held with the four first class teachers and the SET team who would be the primary participants. At this meeting, the other two elements of the guidelines were outlined: (a) a description of the possible discomforts and risks to be expected; and (b) an instruction to the participants that they were free to discontinue at any time and to withdraw from the project. In terms of the anticipated discomforts, the range of demands on teachers were clearly outlined and these included: the expectation that teachers would engage in professional reading and attend meetings to discuss these and to collaborate on planning, teaching and assessing literacy; that the researcher would from time to time work alongside the teachers in their classrooms in a variety of ways; and finally that individual and group interviews would be conducted regularly and would be digitally recorded. All of these points were put in a letter to each teacher (see Appendix A) and they were asked to take it away to consider before signing it. A major focus of the study was the enhancement of children's literacy skills and as such it was

important to be sure that changes undertaken were in fact effective. As a result, there was a regular schedule of testing (in line with the research presented in chapters two and three) to ensure that improvements were occurring and these are outlined in section 6 below. While the testing was more than would normally occur within the time frame, it was deemed to be necessary and in the best interests of discovering if the change process was having the desired effects.

Informed consent for the children and parents was approached in a number of ways. As the children participating in the project were too young to read the consent form, letters were sent to the parents requesting permission for the children to be allowed to participate and they were asked to discuss the project with their child before signing the form (see Appendix A). In addition, classroom teachers explained the purpose of the project and the anticipated benefits for children to the parents during parent teacher meetings. Parents were encouraged to contact the principal or classroom teachers if they had any queries. Finally, at the start of each audio-taped interview, each child was asked if they were willing to have a discussion about reading and writing with the researcher. Likewise with the classroom teachers, permission to audio-tape was sought at the start of each session/interview. Focus groups of parents of the children who were interviewed were also conducted towards the end of the project. The purpose of the interview was explained at the start of the interview and permission to audio-tape was sought. Each parent also signed a consent form (see Appendix A). Finally, ethical approval was sought from the St. Patrick's College Research Ethics Committee and was granted. This process included filling the ethics form, and providing examples of the data collection instruments and the processes involved in seeking and receiving informed consent from participants.

5.5 Initial Data Collection: Questionnaire

A questionnaire for teachers was utilised at the start of the study for a number of reasons. Firstly, it was necessary to obtain a picture of how teachers were teaching literacy prior to the implementation of the study, thus contributing to baseline data. Secondly, the information gleaned from it could serve as background knowledge for the forthcoming individual and group interviews with participating classroom

teachers and special education teachers where issues raised in the questionnaire could be further elaborated, probed and clarified.

5.5.1 Questionnaire design

Denscombe (1998, p.151) suggests that 'every effort should be made to make the questionnaire as brief as possible, by restricting the scope of the questions to crucial issues related to the research.' With that in mind, three major categories were included in the questionnaire: general information (questions 1-3); the teaching of reading and writing (questions 4-21) and school planning (questions 22-30). The questionnaire concluded with a request for teachers to describe a typical reading and writing lesson in their classroom (see Appendix B). Denscombe (1998, p.146) suggests further that questions in questionnaires fall mainly into two broad categories – 'facts and opinions'. The vast majority of questions in this questionnaire were of a factual nature. The general information section sought information about the teachers' qualifications, teaching experience and number of years teaching at the school. The section on the teaching of reading and writing was designed to elicit information across a number of areas identified in the research literature as being important in the teaching of literacy and in particular to ascertain to what extent the reported practices of participating teachers were consistent with or contradicted the findings of the LANDS study (DES, 2005b) and the Eivers et al. study (ERC, 2004), both of which focused on literacy in disadvantaged schools, and the findings of the evaluation of curriculum implementation study conducted by the Department of Education (DES, 2005c). Thus questions focused on the amount of time per week that teachers allocated to literacy and how that time was divided, grouping practices, assessment practices, skills emphasised and method of teaching skills, the range of literacy contexts employed, quality of resources available, the extent of parental involvement in literacy and teachers' opinions on the range of challenges they faced in their daily teaching of literacy. Section three sought information on the development of the school plan for literacy and the extent to which it was implemented school-wide, the nature of collaboration between classroom teachers teaching the same class level and also between classroom teachers and the special education/support teachers. Finally, teachers were asked to identify areas of literacy

which they felt were a priority for future development and which they would like to see addressed as part of the literacy study.

Variety in question format ensures the respondent doesn't become bored and prevents the respondent from falling into a pattern of answering questions, by for example, always picking the number three on a scale of one-five. Consistent question formats, on the other hand, have the advantage of allowing the respondent to become familiar with what is required and to answer the questions quickly and with more clarity. Three main closed question types were utilised in the questionnaire. Respondents were asked to (a) tick yes or no, (b) rate their practices according to either a three, four or five point frequency e.g. always, sometimes, never, or (c) list priorities. Some questions provided an opportunity for respondents to elaborate by providing the option 'other' in case options provided did not fully fit the experiences of teachers. As there were a small number of questionnaires, a statistical software programme was not utilised to analyse the data. Instead, the data were coded and entered on a grid, as recommended by Munn and Drever (1990).

5.6 Instruments Used to Gather Quantitative Data on Student Achievement

A number of standardised testing instruments were used throughout the study. Three of the tests, the Drumcondra Sentence Reading Test (DSRT, Educational Research Centre, 2002), the MICRA-T (Wall & Burke, 2004) and the Drumcondra Primary Spelling Test (Educational Research Centre, 2004) are norm-referenced tests designed to provide information on the reading and spelling performance of children relative to their peers nationally. Given that a standardised test can only provide an estimate of a child's achievement and doesn't provide enough information to inform a teacher on how to design instruction for a particular child that will meet his/her specific needs, it was decided to use the Marie Clay Observation Survey of Early Literacy Achievement (OS, Clay, 2002) which allows a teacher to systematically observe a child in the act of responding to a range of tasks deemed important in early literacy learning. The Middle Infant Screening Test (Hannavy, 1993) had been administered to the children at the end of the school year prior to the start of the study and the results of that test are reported in the study. A criterion-referenced test,

The Criterion Scale: Writing (Wilson, 2002) was used to track and analyse children's performance in writing throughout the study. Finally, a diagnostic tool, a nonsense word test developed by the researcher and based on the Angling for Words phonics programme (Bowen, 1983), was used to assess children's specific word identification skills. Each of these instruments is described in the next section in relation to the rationale for choosing the instrument, the purpose of the test, and the collection, recording, management and processing of the test data. Technical data on each instrument such as sampling used, reliability and validity of the test are reported in Appendix C. The testing schedule is shown in Table 5.2

Table 5.2 Testing schedule across the two years of the study

Test	January First class	June First class	February Second class	May/June Second class
DSRT	1A	1B	2A	2A
OS	Letter ID Word Reading Hearing/ Recording Written Vocabulary Text Level	Word Reading Hearing/ Recording Text Level	Written Vocabulary Text Level	
MICRA-T		1A		2A
Nonsense Word Test		0-45	0-65	
DPST			2A	2B
Writing Sample	Yes	Yes	Yes	Yes

5.6.1 The Drumcondra Sentence ReadingTest

This particular test was chosen because it had been standardised on a nationally representative sample of children in First to Sixth class in May 2002 and had also been used in the Reading Literacy in Disadvantaged Schools Survey in May 2003 on pupils in First, Third and Sixth classes (see Appendix C). As the target pupils in this study were children in First class, it would allow for comparisons of reading achievement with children in the same class nationally and also with children in First class in disadvantaged schools.

The DSRT consists of 40 items designed to simultaneously test word-recognition and reading comprehension. Each item is a cloze sentence requiring

pupils to read the sentence and to determine from a list of four possibilities which word would make most sense in the sentence. Level one of the test has some items with picture clues to aid children and to make the test more attractive for the younger age group. It is a timed test of 20 minutes duration.

The DSRT was administered on four occasions during the study (see Table 5.2). Children's raw scores on the test were converted into standard scores and corresponding percentile ranks. The mean scaled score was 100 with a standard deviation of 15. Teachers in the study expressed concern at the difficulty level of the vocabulary, particularly at level two.

5.6.2 MICRA-T

This test was included in the study as it is the standardised test of reading achievement administered annually in June to all children in First and Second class by the participating school. Results for the MICRA-T were compared with those of the DSRT in both years of the study.

Level one of the test is suitable for First Class (see Appendix C for technical aspects). It consists of 50 items distributed over three parts. The first section comprising 20 items is designed to assess pupils' word recognition skills on both sight vocabulary and words requiring the use of decoding skills. Part two has 12 pseudowords requiring pupils to use their phonological processing skills in order to correctly identify the target word. The inclusion of decodable nonsense words has been cited in research as a valid measure and is particularly useful for identifying pupils with reading difficulties and for predicting future reading difficulties (Byrne, Freebody & Gates, 1992; Jackson & Coltheart, 2001; Siegel, 2003, cited in Wall & Burke, 2004). Part three has 18 items and is designed to test early reading comprehension skill. It requires pupils to respond to a variety of test formats including questions and cloze items.

Level two of the test is also divided into three parts and is suitable for Second and Third class. Part one consists of 20 items and is designed to test pupils' decontextualised word recognition skills on both sight vocabulary and words requiring the use of decoding skills. Part two is designed to assess reading

comprehension and consists of twelve items requiring pupils to respond to questions, follow directions or complete elementary cloze-type sentences. Part three also assesses reading comprehension and consists of 36 items demanding higher levels of comprehension than part two. Pupils demonstrate understanding by identifying the redundant word in a target sentence and deleting it.

Raw scores achieved on the test are translated into standard scores using class-based norms. It is also possible to use age-based norms by converting raw scores into standard scores based on the child's age. Age-based norms are provided for ages 6:03 to 8:02 for level one and 7:01 to 10.00 for level two. Standard scores can also be converted to percentile ranks and STEN scores. For each class level, the mean of the scale is 100 with a standard deviation of 15. In addition, a reading age can be computed for raw scores.

5.6.3 The Drumcondra Primary Spelling Test

The DPST is designed to assess spelling knowledge of pupils relative to their peers nationally. The DPST was administered to children in the second year of the study: Form 2A in February of Second class and Form 2B in June. Form 1A/B was not administered at the start of the study as writing samples of the children revealed that many were in the semi-phonetic stage of spelling and information regarding their sight vocabulary and phonetic skills was already available from sub-tests on the MIST and the Marie Clay Observation Survey.

Level two of the test consists of 45 items. The first 20 items require pupils to spell a target word which the teacher calls out in isolation and then within a context. Part two of the test consists of 10 items requiring sentence completion and here pupils listen carefully to a sentence read aloud and write the word that has been omitted from the sentence in their test booklet. The last section involves the detection of spelling errors in sentences and the pupils are required to write the word correctly. The test is untimed. Raw scores obtained are then converted into class-level standard scores with a national mean of 100 and a standard deviation of 15. Standard scores are then translated into percentile ranks (see Appendix C for more technical information).

5.6.4 Observation Survey of Early Literacy Achievement (OS)

The Observation Survey of Early Literacy Achievement (Clay, 2002) is an assessment tool for the observation and measurement of early literacy skills. It is widely used as a screening instrument, a diagnostic instrument to inform teaching, a monitoring instrument, and as an instrument for evaluating programme effectiveness. It is an individually administered assessment and was intended to be used as the primary assessment tool for teachers trained in the implementation of Reading Recovery, an early intervention programme for children at risk for reading difficulties, though it is commonly used in many schools independently of Reading Recovery (Denton et al., 2006). Clay (2002, p.1) suggests in the introduction that it may also be used effectively by classroom teachers, who want 'to be careful observers of how young children read and write' if they have been given training on how to use it. She suggests that the information gleaned from careful observation can help teachers modify instruction to suit the needs of individual children and that it can be used to track progress over time.

As noted above, the school in this study was included in band one of the DEIS plan. There was one Reading Recovery trained teacher in the school who was interested in sharing her new knowledge with classroom teachers and indeed had already trained two of the newly appointed Special Education Team (SET) in using five of the six sub-tests (running records of continuous text reading excluded). While Reading Recovery is an individualised pullout programme, other researchers have found that it can be equally effective with small groups of children (Fountas & Pinnell, 1996; Iversen et al., 2005; Cox & Hopkins, 2006). At the point in the study that the assessment tool was first utilised (January, First class) the participating teachers had expressed interest in professional development designed to help them develop their assessment and teaching practices in reading instruction and, given that it was a tool already used by the SET team, it made sense to extend the use of this assessment tool to all teachers and children involved in the study. In addition, the OS suited the age range of the children involved in the study. The six sub-tests in the OS (see Appendix C for more detailed information which is based on Clay, 2002; Denton et al., 2006) are:

- Concepts of print: designed to assess knowledge of language and terminology of reading such as directionality, first, last, one to one correspondence, sequencing
- Letter identification: knowledge of upper and lower case letter knowledge
- Writing Vocabulary: Number of words a child can write correctly in a ten minute timed period
- Hearing and recording sounds in words: similar to a dictation and each of the five versions contain 37 phonemes
- Running records: reading of continuous text: a child's miscues are recorded and analysed to determine strengths and weaknesses in relation to word-identification skills and cueing strategies (visual, meaning, syntax) and to determine the child's accuracy on a given text; instructional level is considered to be between 90-95% accuracy, independent level is above 95% and frustrational is below 90%.

The concepts of print is a labour intensive test to administer and was not utilised in the study. Prior to the start of the study, a modified version of the test was conducted by the SET team with children who had performed poorly on the Middle Infant Screening Test in the previous June. Teachers had devised their own version of the test which was shorter than the Clay test but included the most pertinent aspects e.g. directionality of reading, punctuation and terminology such as first, last, and letter.

Training was provided for teachers by the Reading Recovery teacher in the administration and interpretation of running records in February of First class. Teachers assessed children in March and used the running records initially to make decisions on how best to group children and match them to an instructional level text. Thereafter, records were taken on a regular basis to inform small group instruction. The level of text children were reading was monitored throughout the study. By February of Second class the majority of children had worked their way through the levels and were now reading a range of fiction and non-fiction.

Denton et al. (2006) conducted a study to evaluate the Observation Survey's validity, reliability and utility as a tool for (a) screening, (b) diagnostic assessment (c) progress monitoring and (d) evaluation of its effectiveness. They concluded that

the OS had sufficient validity to warrant its use as a screening instrument. They suggested that appropriate benchmarks be established for each sub-test and progress evaluated in relation to attainment or otherwise of the benchmarks. Two of the sub-tests, in particular (Word Identification and Writing Vocabulary), when combined, were strong predictors of year-end attainment for First grade, correctly classifying 83% of the sample, with no false negative errors and a 19% false positive rate. The Text Reading sub-test, on the other hand, tended to over-identify students as being in need of extra support and so should not be used on its own to make decisions regarding support allocation (It had a high percentage of false positives (36%)). In addition, the benchmark of attaining Level 16 by the end of the year proved difficult to predict, indicating it needed to be re-examined as a cut-off point. In terms of its utility as a diagnostic instrument, Denton et al. concluded the OS was viable for use in this manner, particularly if used in conjunction with benchmarks. For evaluation purposes, it is useful if used to compare the number of students who do/not meet the benchmarks and they recommended 'that other reading assessments with established psychometric properties be used in place of the OS for the evaluation of responsiveness to early reading instructional programmes' (p.33). Furthermore, in terms of using the OS to plan effective programmes, the authors point out that the OB only measures particular aspects of early literacy development and omits measures on vocabulary, phonemic awareness and comprehension, which have been established as essential reading skills (NRP, 2000).

5.6.5 The Criterion Scale

The Criterion Scale (Wilson, 2002) was developed in the United Kingdom in line with the curriculum requirements for the key stages of the national curriculum with the specific aim of raising standards in writing. It is divided into five levels ranging from below level one to level five. Four distinct strands of writing development are measured in the scale: (a) the mechanics of writing (grammar, spelling, punctuation, handwriting); (b) skills associated with the development of the writing voice (quality of expression, creativity, originality); (c) the ability to respond accurately to an age appropriate stimulus for writing; and (d) the ability to use and apply the characteristics of a range of genres.

Table 5.3 Summary of Criterion Scale

Total number of criteria	**Sub-levels**	**Criteria for each sub-level**	**Pre-requisites (Essential in order to assess for the next level)**
Working toward level 1 (26)	W1	No sub-levels in W1	
Level 1 (9)	1C	Criterion 9 + any 4 others (total 5)	Can spell some common mono-syllabic words accurately. Gist of writing is decodable without help from the child. Criterion 9 required.
	1B	Criterion 9 + any 5/6 others (total 6/7)	
	1A	Criterion 9 + any 7/8 others (total 8/9)	
Level 2 (22)	2C	8-12	Can use simple words and phrases to communicate meaning. Majority of work decodable without help from the child.
	2B	13-17	
	2A	18-22 (assess for level 3)	
Level 3 (19)	3C	7-10	Can spell common mono-syllabic words accurately and use phonetically plausible strategies to attempt unknown polysyllabic words. Can vary sentence structure. Can sustain form to around 100 or more words.
	3B	11-15	
	3A	16-19 (assess for level 4)	
Level 4 (17)	4C	6-8	Can use correct grammatical structures. Can structure and punctuate sentences correctly (. , ?) Can use a range of connectives. Can spell mono-syllabic words and common polysyllabic words correctly.
	4B	9-12	
	4A	13-17 (assess for level 5)	
Level 5 (22)	5C	9-12	Can use nouns pronouns and tenses correctly. Can use a range of sentence punctuation accurately (, . ? ' " "). Can use ambitious vocabulary. Can vary sentence structure.
	5B	13-17	
	5A	18-22	

WL1 (Working below Level One) contains 26 descriptors listed in an approximate hierarchy, the first ten of which are related to the pre-letter formation stage. Thereafter each level has a number of descriptors divided into three sub-levels indicating a range of performance on the descriptors (c) low, (b) secure, and (a) high. If a child shows evidence of performance across the three sub-levels, a best-fit judgement has to be made. In addition, each level after WL1 has a pre-requisite skill

that must be achieved before the child can be rated at that particular level. For example, a child may exhibit evidence of many of the descriptors on a given level but cannot be assigned a rating at that level unless the pre-requisite skill is secure (see Table 5.3). The criteria were standardised in the assessment of over 20,000 pieces of writing spanning all six levels. According to the publishers, over 50 teachers also successfully used it in the moderation of 600 samples of writing across the reception year and key stages one, two, and three (www.andrelleducation.co.uk) though this information is not included in the actual publication so it is difficult to ascertain the technical aspects of the scale. In this study, the criterion scale was used to rate children's writing gathered at four points of the study. A second rater (a primary school teacher not involved in the study) was recruited so that a measure of consistency in applying the scale (reliability) could be achieved. Both raters assessed all baseline and end of year one writing samples while in year two a sample of scripts was double marked by the raters.

A check was made on reliability after a quarter of samples were completed in each case to ensure raters were interpreting the scale correctly. Some of the criteria in WL1 could not be assessed by the second rater as they required observation of the child at work and so these were filled in by the researcher e.g can hold a pencil effectively, knows the meaning of print. Differences in interpretation occurred when there was a judgement to be made e.g. as in the following case: Can communicate ideas and meaning confidently in a series of sentences (level 2B), can make ideas lively and interesting (2C), can use interesting and varied word choices (3C, MUST pick up on the kind of ambitious words already used in 2B), and can attempt to give opinion, interest or humour through detail (3A). These differences were resolved through discussion and through agreement on what represented examples of such criteria e.g. discussing examples of ambitious word choice. These samples of writing were then re-marked by both raters to ensure consistency. This process continued until there was a 90% agreement rate. Thereafter, both raters independently rated ten samples of writing (representing just over 10% of total samples) from each set of writing samples gathered and results were compared. An initial inter-rater agreement rate of 70% was achieved on the February Second class sample and 80% agreement on the June second class sample. On each occasion, a selection of 10 samples at the end of scoring yielded a 90% level of agreement.

5.6.6 Nonsense Word Test

Angling for Words (Bowen, 1983) is a multi-sensory, systematic and highly structured synthetic phonics programme. It is divided into seven levels: short vowels and consonants, vowel consonant e, r-controlled vowels and consonant digraphs, vowel consonant vowel syllable division, vowel digraphs, special syllables and spelling rules not already presented in the previous levels. It was utilised in the study in two ways. Firstly, it was adopted by the teachers in the study as part of their phonics programme (three days a week, the other two days were used for analytic work such as making and breaking words) and they worked systematically through it. Secondly, it was used as an assessment tool to monitor children's phonic knowledge. A test of nonsense words was devised by the researcher, based on the levels of the Angling for Words programme the children had completed in order to check their ability to apply the phonic lessons taught. Children were asked to read the nonsense words aloud and were awarded one point for each word read correctly.

5.6.7 Middle Infant Screening Test (MIST)

The MIST (Hannavy, 1993) was administered to the children in the study towards the end of the Senior Infant year, prior to the commencement of the study. The data from the test were used in September of First class to identify the lowest-achieving children who were then re-tested on a range of early literacy skills to determine who would receive learning support or resource teaching. There are six subtests in the MIST, three of which are similar to the letter identification, written vocabulary and sentence dictation sub-tests in the OS (Clay, 2002) discussed above (see Appendix C):

- Sub-test one: Examines listening skills
- Sub-test six: Examines listening skills (more complex stories than sub-test one)
- Sub-test two: Letter sound association: write the letter that corresponds to beginning sound of a target word
- Sub-test three: Write as many words as possible in ten minutes

- Sub-test four: Dictation of three-phoneme words
- Sub-test five: Sentence dictation

Each sub-test has both a maximum score and a cut-off score. The cut-off score is used to identify children who are under-achieving in particular skills, though the manual does not describe how these are arrived at. It is recommended that the Forward Together follow-up programme be utilised with the children falling below the cut-off point. The work of Marie Clay is cited in the introduction and it appears that both the Observation Survey of Early Literacy Achievement and the fifteen years professional experience of the author heavily influenced the development of the MIST.

5.6.8 Analysis of the quantitative data

All test data gathered were entered into the computer and the statistical package University of Pittsburgh Statistical Package for the Social Sciences (SPSS 14.0 for Windows) was utilised in data analysis. First, measures of central tendency (e.g., mean) and measures of dispersion (e.g., standard deviation) were computed for each of the data sets. In addition, maximum and minimum scores were obtained in each to establish the range of scores obtained by the children. An analysis of variance (ANOVA) was conducted to compare the mean scores of the classes on the DSRT and to determine if there was a statistical difference between them at the start of the study. At various points of the study, paired samples t-tests were conducted to compare mean achievement and determine if differences in children's achievement were statistically significant (i.e. differences were unlikely to occur by chance) between two points in time. Where multiple t-tests or post-hoc tests involving multiple comparisons were conducted, alpha levels were adjusted to guard against Type One error. The substantiveness of differences was evaluated using Cohen's (1988) effect size statistics or d. Correlations were also run to see if there were relationships between performances on selected scales e.g. between children's text level reading and their performance on the DSRT or between performance on the nonsense word test (developed by the researcher) and the DPST.

5.7 Qualitative Data Gathered in Interviews and Group Discussion

5.7.1 The interview

Three kinds of interview format are identified in the literature on research methodology. The choice of which interview format to use depends on the purpose of the interview. Semi-structured interviews and group discussions were selected for use in the study as they offered a number of advantages for the investigation of the research questions.

Semi-structured interviews offer flexibility. Issues to be explored can be determined in advance and a schedule of questions prepared. By carefully designing the questions and considering the pertinent issues, the researcher can discover what is important to comprehend about the phenomenon under study (Maykut & Morehouse, 1994) and as such the interviewee is encouraged to speak freely and to expand on thoughts and ideas raised by the researcher (Denscombe, 2003), thus going beyond surface talk. In the study, semi-structured interviews were conducted with teachers both individually and in groups, with parents in groups and with individual children selected to participate (see Table 5.4 for the sequence of these interviews).

The study commenced with a semi-structured group interview involving the classroom teachers and Special Education Team (SET) in order to probe and expand upon information gleaned through the initial questionnaire. The rationale for beginning with a group interview was to provide a non-threatening, comfortable context in which to explore current teacher practice in relation to literacy instruction within the school. It would also allow the researcher an opportunity to begin to develop a relationship and rapport with each participant while 'demonstrating sensitivity to the views and experiences of the research participants' from the outset (Maykut & Morehouse, 1994, p.105). At this first interview, an invitation was extended to the participants to engage in the research project in a *collaborative* manner with the researcher in order to discover how best to address the complex issues of underachievement in literacy. This also served to reduce the 'power differential' between researcher and participants (Mishler, 1986, p.118, cited in Maykut & Morehouse, 1994). Individual interviews were conducted with teachers at

three points of the study and served to give each teacher an opportunity to expand further on issues (see sub-section on interview schedules below and appendix D for interview questions.)

Table 5.4 Sequence of interviews

Kind of interview	**Date**
Semi-structured group interview	• October First class: Classroom teachers and SET team • June First class: SET Team • March Second class: Parents of children interviewed • June Second class: SET Team
Group discussions with classroom teachers	• November-March First class (5) • November-May Second class (6)
Group discussions: classroom teachers/SET together	• February-June First class: (6) • September-March Second class (5)
Individual semi-structured interviews: 4 classroom teachers and 5 children from each class	• November-December First class: *Focus on writing: Chn.* • January First class: Classroom teachers • March First class: *Focus on reading: Chn* • June First class: Classroom teachers • May Second class: *Focus on reading and writing: Chn* • June Second class: Classroom teachers

As outlined earlier, researchers operating within transformative-emancipatory and pragmatic frameworks engage in the field for an extended period to capture the complexities of perspectives, experiences and perceptions of participants and the setting, thus gaining a real picture of the phenomenon in order to reach conclusions for policy (Mertens, 2003). This occurred in this study through the taping of meetings and group discussions with teachers over the two years. In these interactions with teachers, pre-determined questions would not have been appropriate; rather it was more important to allow the teachers to take the lead and express their reactions, perceptions and developing understandings of the literacy process with the researcher alert to the emergence of critical thoughts and ideas in relation to the purpose of the study.

On these occasions, the researcher together with the teachers negotiated the change process and the next steps to take. This collaboration was most productive as it allowed a certain amount of 'risk-taking, testing out the worth of ideas, being playful in ways that stimulated imaginative leaps....challenging the ideas of others, appropriating values or ideas of others and deepening each other's contributions to

the product or task' (John-Steiner, 2000, p.124). In these sessions, teachers and researcher worked together to discover what could work in an Irish context. These sessions were multi-faceted. They included: professional development where a new aspect of literacy was explored; debate around the professional readings that teachers had been engaged in; examination of pupils' work and test results; planning for implementation of changes, and reaction to new methods already tried. John-Steiner (2000, p.189) suggests that adults working in this kind of partnership 'create zones of proximal development for each other. Collaboration can be a mirror for each partner - a chance to understand one's habits, styles, working methods and beliefs through the comparison and contrast with one's collaborator'.

Group interactions, whether of the semi-structured variety or the more open-ended as in the group discussions with teachers, have a different dynamic to individual interviews and allow for information and insights to emerge that may not come to light in an individual interview. In a group interview, the participants hear each other's contributions, allowing them to compare their responses to those of the other participants, which in turn often sparks new insights (Patton, 2002). In this study, having the opportunity to regularly interact with teachers at the group and individual levels allowed for a rich dialogue and contributed greatly to the shape of the change process and ultimately the conclusions arrived at.

In addition to group interactions with teachers, towards the end of the study, the parents of the children interviewed in the study were invited to participate in semi-structured group interviews. Some of the interviews occurred in pairs, some in small groups and one parent opted for an individual interview as the times set up for interview did not suit. Parents were asked if they were aware of the literacy project and were invited to give their views on any aspects of it. Also of interest were their views on the children's motivation and engagement in literacy at home and at school and whether they had noticed any differences in this since the start of the project. Parents were also asked how their children managed with homework and what kind of assistance was needed. Finally, how they felt their children would succeed after leaving the Junior school and their aspirations for them in the long term were explored (see Appendix D). Three quarters of parents responded to the invitation and many went out of their way to attend, taking time out of work. They were pleased that their opinions were sought and valued.

In order to explore how the changes in classroom instruction in literacy would impact on the children's motivation and engagement with literacy and their knowledge and application of literacy strategies, interviews were conducted with children at three points of the study (see Table 5.4) in parallel with the teachers, thus communicating that the views of children and teachers were of equal importance (McCormick & James, 1988). They make a number of other suggestions for consideration when interviewing children. The establishment of trust and rapport with the child is not only essential but is a pre-requisite for success. The first interviews were conducted about a month after the writing workshop was initiated and when the children were used to seeing the researcher in the classroom and were on a first name basis with her. Next, it is vital that the interview is conducted in an informal manner in a physical environment familiar to the child and that the questions are pitched at the right level with vocabulary appropriate for the child's age. The school library was used for the interviews and every effort was made to put the children at their ease, to keep the tone light and conversational throughout and to give the children an opportunity to elaborate on their thoughts and ideas. In addition, researchers need to be mindful of children's nonverbal cues and should not assume that children know the answer to the questions posed. Techniques for overcoming reticence on the part of the child or indeed eliciting responses from the inarticulate child or keeping to the point of the interview and refocusing should the conversation go off on a tangent should be considered ahead of time. In this study, special attention was paid to the children's body language and non-verbal cues - for example, if they were having trouble responding to a question or if they were tiring. If so an appropriate action, such as rephrasing or probing in relation to a question or changing pace or stopping the interview if children were tiring, was taken. The interviews focussed on children's perceptions of themselves as readers and writers, their attitudes to reading and writing, the kinds of strategies they could use while reading and writing and their reading and writing practices outside of school (see Appendix D). Generation of questions for all of the interviews with teachers, parents and children and analysis of the interviews are described in the next section.

5.7.2 Generating the interview schedule

Maykut and Morehouse (1994) outline a number of steps in the development of an interview schedule. Once the research focus has been clearly identified they recommend beginning the process with a short brainstorm where possible topics, concepts and questions are quickly recorded. At this point all ideas are considered valid and no exclusions are made. Secondly, ideas are examined for similarities and are then grouped and labelled as a category of inquiry. They emphasise that proceeding in this manner ensures that the categories are arrived at inductively arising from the professional experience and working knowledge of the researcher. However, an extensive literature review was carried out as part of the study and so it was necessary to include elements of this in the interview schedule as well. So questions were arrived at both inductively and deductively and the areas of most interest and of direct relevance to the study were selected for inclusion.

In this study, four of Patton's (2002) typology of questions were mainly utilised. Background and demographic questions were not needed as they had been dealt with in the initial questionnaire and by the time the first individual interviews were held the teachers and children were known to the researcher. Sensory questions were rarely asked as the researcher was a frequent visitor to the classrooms of the interviewees and was familiar with the classroom environment and context. An example of how Patton's typology mapped onto the interview schedule can be seen in Table 5.5.

Table 5.5 Typology of questions used in interviews

Patton's Typology (2003)	**Category: Approach to teaching reading: January 06**
Experience/behaviour questions	How do you teach reading? At this stage of the year what would a typical reading lesson look like in your classroom?
Opinion/value questions	Do you have a particular philosophy/theory about how children learn to read that informs the way you teach reading?
Feeling questions	How did you feel about the in-service on the 1999 English Curriculum? Did it influence your teaching of reading? If so in what ways?
Knowledge questions:	What reading skills do you emphasise with the children in first class? Why these particular skills? How do you teach these skills?

As recommended by Patton, the non-controversial questions were asked first and the more difficult questions were asked after the interviewee had been put at ease. While the categories and questions were prepared ahead of time, the actual sequence varied from interview to interview as the order in which the questions were asked depended on the responses given by the interviewees and this in reality dictated the sequence of the questions. In addition, as Maykut and Morehouse (1994, p.97) remind us, the 'qualitative posture is one of flexibility and responsiveness to the unexpected emergence of unanticipated twists and turns in the content of the interview' and to this end there was flexibility to deviate from the questions and pursue a topic or issue raised by the interviewee. Throughout the interviews a number of probes were used to delve deeper into a participant's responses when necessary. According to Patton (2003, p.375) 'probing is a skill that comes from knowing what to look for in the interview, listening carefully to what is said and what is not said, and being sensitive to the feedback needs of the person being interviewed'. In conducting the interviews, *detail oriented probes* were used when more detail was needed or when the researcher was interested in finding out more; *elaboration probes* were used to encourage the interviewee to continue speaking on a given topic and included verbal cues and gestures; *clarification probes* were used to gently communicate to interviewees that there had been some confusion and clarity was needed; and *contrast probes* were used to help interviewees articulate how, for example, a new approach compared to an approach used previously.

5.7.3 Data analysis

Each transcript was first coded in order to identify the source of the data and to ensure quotes were traceable back to the original transcript. Table 5.6 illustrates the codes given to each interviewee and interview format used in the study.

Table 5.6 Codes assigned to interviews

Interviewee	**Code followed by page of transcript**
4 Classroom teachers	Letter code: A, B, C, D/p.-
4 Special Education teachers	Letter Code: LSA,B,C,D/p.-
Semi-structured individual teacher interviews	II/p.- MI/p.- FI/p.-Initial (January, First class); Medial (June, First class); Final (June, Second class)
Informal group conversations with classroom teachers	CL(1...) + letter code for teacher/p.-
Informal group conversations with classroom teachers *and* SET team	CLST (1...) + letter code for teacher/p.
Semi-structured group interviews SET team only	SET(1-2) LS(ABCD)/p.
5 Children in each classroom	Assigned pseudonyms/p.
Semi-structured interviews with children in each classroom (Reading, Writing, Final)	R+ pseudonym, W+ pseudonym, F+ pseudonym/p.
Informal group interview with parents of children involved in the study. (1x 6 groups)	GIP(1-6)/p.

The following examples demonstrate the code in action:

- IIC/p.7: initial individual interview, teacher C, page 7 of transcript
- SET2LSA/p.3: group interview 2 with SET team, learning support teacher A, page 3 of transcript
- CLSTLSA/p.8: class teacher and SET team informal group discussions, learning support teacher A, page 8 of transcript

Glaser and Strauss' (1967) 'constant comparative method' was used to analyse this data. A discovery or inductive approach as defined by Maykut and Morehouse (1994, p.132) was utilised in the early data analysis: 'at this point the goal is to discover a large array of potentially important experiences, concepts, ideas, themes etc...a beginning search for the important meanings in what people have said to you, in what you have observed.'

Coding the data

A systematic approach was then taken to 'unitising the data' (Lincoln & Guba, 1985). This process facilitated the construction of what Maykut and Morehouse (1994) refer to as the 'audit trail', which in turn contributes to the trustworthiness of the data, demonstrating the path taken from initial data analysis through to the final outcome propositions. Each transcript was first transferred into column one of a four-column table in Microsoft Word (see Table 5.7). Labels were developed for each unit of meaning contained in the data by carefully reading each chunk and assigning a tentative descriptive code to it in column two of the table. This process, known as 'open coding', facilitated 'fracturing or breaking open the data' and led to the summarisation of the data into descriptive low inference codes (Punch, 1998, p.211). This inductive approach to analysis requires an openness on the part of the researcher and a tolerance for ambiguity (Maykut & Morehouse, 1994, p.137) in the initial stages of data analysis. Charmaz (2007, p.7) recommends that the researcher adopt a critical stance toward the data (not the participants), to ask questions of it and to refrain from 'invoking the buzzwords and judgements of your discipline.' This tension between being an outsider and insider is expressed well by Maykut and Morehouse:

> 'Thus, the qualitative researcher's perspective is perhaps a paradoxical one: it is to be acutely tuned-in to the experiences and meaning systems of others – to indwell – and at the same time to be aware of how one's own biases and preconceptions may be influencing what one is trying to understand.' (1994, p.123):

In this first analysis of the data, the researcher sought to minimize the effects of personal experiences, beliefs and known theoretical explanations shaped by the literature review underpinning the study and endeavoured instead to 'stand back [from them] and question [ed] them to see if they are blinkering the researcher's vision of what is happening' (Denscombe, 2003, p102).

After each piece of data had been assigned a descriptive code, a further layer of analysis was conducted which sought to extract and infer the meaning of each one; this analysis was placed in column three. This higher level coding led to the

development of categories and a 'rule for inclusion' or a 'propositional statement' of data in the particular category:

> The essential tasks of categorizing are to bring together into provisional categories those cards (data chunks) that apparently relate to the same content; to devise rules that describe category properties and that can, ultimately, be used to justify the inclusion of each card that remains to be assigned to the category as well as to provide a basis for later tests of replicability; and to render the category internally consistent. (Lincoln & Guba, 1985, p. 347)

Table 5.7 Example of analysis process

Interview Code, Question and Quote	**Open Code**	**Initial Interpretation: Thoughts Questions**	**Category/ Proposition**
CLST1/p.10 Yeah, I put them into partners, like we'll say out of the fifteen I put them into what I call reading partners say, a week ago, and they were delighted with that, but the bottom five, you couldn't really, you know, well I might try because they were asking me today, it's funny enough, because they see the others with partners. And then of course there's all the reading games we do, like Bingo and that Map Around, that all comes in under reading as well. Do you know that kind of thing? But I find the partners now, is working really well.	Higher achieving children with reading partners Children enjoy partner work Games used to consolidate skills	Teacher perception: lower achievers would have trouble working with partners. Does nature of instruction vary according to ability? Is that because of unavailability of suitable independent level texts? Question: how do lower achievers feel about this? Is there an impact on their self-esteem? There is social dimension to learning (paired work) and an active approach to consolidation (games)	Teacher perceptions of children Teacher expectations Teaching of Reading: *literacy is a socially mediated activity* *the nature of instruction varies according to ability?*

According to Bogdan and Taylor (1984, p.184) 'a proposition is a general statement of fact grounded in the data' and as such, propositions are the beginning revelations yielded by the data. As each new unit of meaning was identified it was compared to the previous one and the 'look/feel alike' criterion (Lincoln & Guba, 1985) was used to determine if the new unit of meaning was similar to an established category. Thus, a new category emerged each time a unit did not fit with a previously identified one. Major categories were then divided into subsets of the category so 'the range and variation of a category could be mapped in the data' (Hammersley & Atkinson, 1983, p.180). A separate file was then created for each major category and

the sub-categories within it. As data were categorised by proposition, they were copied and pasted into the file. Charmaz (2007, p. 38) recommends that researchers use the process of memoing. This, she suggests, can help the researcher 'clarify categories by defining them, stating their properties, delineating their conditions and consequences and their connections with other categories.' In some instances, units of meaning fitted into more than one category or proposition. When this occurred the unit was inserted into each of the relevant files. As the analysis proceeded, these initial categories and propositions were further refined and adjusted as each piece of data was added to the growing bank of data. Again, memo writing can aid this process as it can aid the researcher to 'develop fresh ideas, create concepts and find novel relationships' (Charmaz, 2007).

After analysing the data inductively and a picture of the participants and the context had emerged, the data were also analysed deductively (testing of theories and hypotheses) to determine to what extent the data were converging with explanations and phenomena identified within the literature review. For example, the teacher data were re-examined to determine if the professional development provided had in fact contributed to developing teachers' pedagogical content and strategies (Shulman, 1987) and evidence of these characteristics were looked for in the interviews. Following this, new categories were added to the existing ones. In addition, the responses of participants were tracked over time and separate files in each category were created for each one so the changes in thinking, knowledge, practices and beliefs could be monitored. Furthermore, the data were examined for relationships within and between categories, leading to more in-depth understanding of the research questions and the synergy of factors critical to the change process. Patterns were also sought across all of the participants and interview data from children, teachers and parents were examined for similarities and differences, which allowed for the triangulation of the data (see final section below). These categories were ultimately combined into themes which formed the construction of chapters nine and 10.

5.8 Data Gathered Through Observations and Audio-Taped Teacher Lessons

Cohen et al. (2003 p.305) suggest that observations are an appealing method of data collection for a number of reasons. Firstly, they offer researchers the opportunities 'to capture 'live' data from 'live' situations so that information gathered is first hand rather than second hand as in other data collection methods, enabling the researcher to see the reality and complexity of the participants' environment and thus to more fully understand it. Another advantage of observation is that it allows the researcher 'to directly see what people do without having to rely on what they say they do' (Johnson & Turner, 2003). Morrison (1993, p.80 cited in Cohen, Mannion & Morrison, 2003) suggests that observations can also yield information on four different aspects of a setting: (a) physical setting (e.g. classroom environment); (b) human setting (e.g. teachers and children); (c) interactional setting (e.g. nature of interactions in literacy lessons); and (d) programme settings (e.g. instructional strategies and resources used). These were useful for focusing observations in addition to the frameworks described below. In this study two kinds of observation were used: participant-as-observer and semi-structured observations, and these are described in the next section.

5.8.1 Participant observation in the study

Patton (2002) suggests that there are a number of advantages associated with participation observation. It offers researchers the opportunity to discover things that 'may routinely escape awareness among the people in the setting' or things which participants may not have considered important enough to report in interviews or aspects they may have been unwilling to discuss in an interview situation (Patton, 2002, p.262-264). This first-hand experience also allows the researcher to 'be open, discovery-oriented and inductive' (Patton, 2002, p.262). As Maykut and Morehouse point out:

> The participant observer attempts to enter the lives of others, to indwell, in Polanyi's term, suspending as much as possible his or her own ways of viewing the world. In the broadest sense, the participant observer asks the questions: What is happening here? What is important in the lives of people here? How would they describe their lives and what is the language they would use to do it? The task is one of listening hard and keenly observing what is going on among people in a given situation or organization or culture in an effort to more deeply understand it and them. (1994, p.69)

Lincoln and Guba (1985) go further in their support of participant observation and suggest that, 'a person, that is, human-as-instrument is the only instrument which is flexible enough to capture the complexity, subtlety and constantly changing situation which is the human experience'. However, Patton (2002, p.268) also reminds us that participant observation is not without its problems: 'the challenge is to combine participation with observation so as to become capable of understanding the programme, [setting, participants] as an insider while describing the programme for outsiders and to do so without losing one's objectivity'.

In this study the researcher was a frequent visitor to the school. This involved facilitation of teachers' meetings to plan and implement changes in literacy provision and instruction within their own classrooms and also at a school level as outlined earlier. It also involved demonstrations of new methodologies for teachers, thus giving the researcher opportunities to experience first-hand the settings, challenges and difficulties involved in teaching in a disadvantaged context. These visits where possible were digitally recorded, and field notes were also written and were used throughout the study to guide reflection and the next steps in the change process. The participant-as-observer was therefore an essential part of the study, enabling the researcher to better understand the school context than would have been possible through conducting interviews alone. This prolonged engagement in the field (an essential for researchers conducting research through a transformative-emancipatory lens) helped the researcher and participants to jointly chart a way forward that would be successful in not only significantly improving the literacy achievement of the children involved in the study in the short term but also helping the school sustain, and build on the changes made in the long term.

5.8.2 Semi-structured observation

Johnson & Turner (2003, p.313) refer to semi-structured observations as intra-method mixed observation which allows the researcher to mix characteristics of qualitative and quantitative observation, capitalising on the strengths of both e.g.' the researcher may use an *a priori* observation protocol but also take extensive field notes during and after observations'. In relation to the semi-structured observations in the study, an observation schedule was devised that reflected the focus of the reading and writing methodologies employed in the study. The Observation Guide for the Chicago Reading Initiative (CRI, Shanahan, 2002) was adapted for this purpose and was deemed appropriate to use as it was originally devised to help disadvantaged public schools in the Chicago area with large numbers of children under-performing in literacy and was based on a research and evidence-based approach to instruction (see chapter two for a discussion of the CRI and its observation scales). The general design of the CRI observation frameworks was retained but the content was adapted to the literacy programme used in the study. Thus a guide (see Appendix D) was developed for (a) the teaching of sight vocabulary, (b) the teaching of the Angling for Words phonics programme outlined earlier, (c) the writing workshop using a Calkins (2003) and Graves (1995) approach, and (d) comprehension strategy instruction using the Fielding & Pearson (1994) model.

Teachers in the study used the frameworks as a checklist and rated the researcher as she modelled lessons. The researcher used them for triangulation purposes to verify that instructional changes that teachers were reporting in interviews were in fact occurring. Finally, a further reason for conducting observations was the finding from the research literature on effective professional development that the teachers who had experienced collaborative approaches involving classroom observation and feedback had stronger beliefs in themselves and their power to change things compared to those who had experienced observation in a supervisory or accountable capacity and who had not received feedback (Da Costa, 1993, cited in Cordingley et al., 2003). Semi-structured observations occurred at three points of the study and were enhanced by the taking of field notes and recorded follow-up discussions with the teachers in question (Table 5.8). In addition, each

teacher digitally recorded two reading and two writing lessons. Digital recorders were made available to the teachers and they were encouraged to listen back to themselves on the tape to promote further reflection on their teaching.

Table 5.8 Sequence of observations and digital recording

Observation (Obs) / Digital Recording (DR)	**Timing**
Writing Workshop (Obs1)	December First class
Reading Workshop strategy instruction (Obs2)	December Second class
Reading /Writing Workshop 2 lessons (DR)	November-December Second class
Reciprocal Teaching (Obs3 + DR)	June Second class

Limitations of observation

Observation as a data-gathering tool is not without its problems and limitations. A common problem with observation is reactivity, the effect of the presence of the observer on the observed. Most researchers agree that this can decrease significantly if the researcher has prolonged engagement in the field (Johnson & Turner, 2003) as was the case in this study. Over the course of the two years teachers and children had become used to the presence of the researcher and the teachers in particular were used to having conversations taped.

The researcher endeavoured to take Robson's (2002, p.328) advice regarding the influence of possible biases in observation. In relation to the semi-structured observations, bias was minimised through engaging in *minimal interaction* during the observation and by *habituation* (members of the group becoming used to the observer's presence). The researcher sought to reduce the threat of *'selective attention'* and *'selective encoding'* by making a *'conscious effort to distribute attention widely and evenly'* and endeavouring to *'to start with an open mind and keep it open'*. In addition, observational data were triangulated with evidence from other sources e.g. interviews with teachers, children and parents and with test data and work samples. Another factor contributing to the trustworthiness of the semi-structured observational data was the collaborative nature of the research. Teachers were genuinely concerned that they would have an impact on children's achievement and were thus happy to be observed and to receive feedback, knowing that it would lead to better outcomes for the children.

5.9 Overall Interpretation

Data analysis permeated each phase of the study rather than constituting a distinct and separate phase extending from initial data generation through to writing the research conclusions. As Maykut and Morehouse (1994, p.145) point out 'pondering the substance and sequence of the writing requires a rethinking of the data often yielding new insights and understanding'. Analysis was a recursive process involving what Hammersley and Atkinson (1983, p.39) describe as 'a constant shuttling back and forth,' and in this study that involved examining both the qualitative and quantitative data throughout. An overall interpretation was made by combining all of the data sources which were examined abductively (uncovering and relying on the best of a set of explanations for understanding one's results, Burke Johnson & Onwuegbuzie, 2004, p.17). This triangulation of the data sources (outlined in section 2 above) contributed to the trustworthiness of the findings.

5.10 Trustworthiness of the Research Findings

Issues of reliability, validity and generalizability of data collection and analysis have typically been associated with the positivist and post-positivist approaches to research. Lincoln and Guba (1985, p.289-331) are of the view that the terms 'credibility' and 'transferability' of the data are better suited to the constructivist or qualitative approach. In order for the findings of the research to be considered believable the onus is on the researcher to make each stage of the research process visible (Maykut & Morehouse, 1994, p.145-148), for example, by detailing the purpose of the study, how the participants became part of the study, the specific setting and participants, the data collection and analysis procedures used and the findings and outcomes arrived at. Mishler (1990, p.417, cited in Maykut & Morehouse, 1994, p.147) supports this view but adds that the ultimate test of trustworthiness is whether the audience finds the outcomes credible enough to act upon them: 'the key issue becomes whether the relevant community of scientists evaluates reported findings as sufficiently trustworthy to rely on them for their own work'. Many of the issues related to the trustworthiness of the data have been discussed throughout this chapter and are referred to here briefly.

One way of increasing trustworthiness is to utilise multiple methods of data collection so that the limitations of one method can be offset by the strengths of another (Creswell & Plano-Clark, 2007, p.9). In this mixed methods study, a conscious effort was made to use a variety of methods (questionnaire, interviews, observation, test data) to ensure the research problem was investigated from many viewpoints. Lincoln and Guba (1985, p.301-307) suggest five further ways the trustworthiness of the findings can be maximised.

The first of these is prolonged engagement, discussed earlier in the context of participant observation. In this study, the researcher was in the field for two years, thus allowing for the development of a trusting relationship with participants and opportunities to 'test for misinformation introduced by distortions either of the self or of the respondents' (p.301). As Lincoln and Guba point out, 'no one enters a site in a mindless fashion' (p.302) so the researcher must be wide-awake to his/her own preconceptions and *a priori* values and make a conscious effort to recognise when these creep into the data.

The second measure to increase trustworthiness is that of persistent observation, the purpose of which is 'to identify the characteristics and elements in the situation that are most relevant to the problem or issue being pursued and focusing on them in detail' (p.304). This involves the researcher continuously refocusing and identifying the most important features of the phenomenon being studied. This process was aided in this study by the writing of memos and by the close examination of the interrelationships between the quantitative and qualitative data, which in turn informed subsequent data collection and analysis.

The third safeguard is that of triangulation. In this study triangulation occurred across the multiple methods and data sources and has been illustrated in Figure 5.2. In addition, the multilevel model used as the basis of the research design contributed to triangulation (see Figure 5.1).

Fourthly, the researcher should provide a clear audit trail of the data collection and analysis procedures. These have been detailed earlier in this chapter and include the quantitative analysis procedures employed using SPSS and the systematic coding of the qualitative data.

Finally, Lincoln and Guba suggest the use of 'member checks' as being the most crucial technique for establishing credibility. This involves checking that the 'data, analytic categories, interpretations and conclusions are tested with members of the stakeholding group from which the data were originally collected' (p.314). Maykut & Morehouse (1994, p.147) suggest that member checks can help a researcher know if they have produced a 'recognizable reality' for the participants and that they are invaluable in helping to emphasise particular points or to discover something missed. Member checks were used at various points of the study. Quantitative data such as test results were shared and debated with the participants throughout the study to explicate results, including any unusual pattern in the data in particular, and also to introduce new methodologies when needed and to provide for the differentiation in teaching required for particular children. In relation to the interviews with the teachers involved in the study, copies of the transcripts of the interviews were provided. In relation to the observations, there was a follow-up taped discussion with the teacher in question, allowing for the clarification of any issues raised by either party. Finally, provision was made to present the research outcomes to the participants following final analysis and write up.

6 LITERACY PEDAGOGY PRIOR TO START OF THE STUDY

In line with professional development models focused on improving school achievement outcomes, outlined in chapter two (Guskey, 2003, Loucks-Horsley et al., 2003), this study began with an investigation into the school context. This was approached in a number of ways in order to create as full a picture as possible of the current context so that whatever plan was put in place would be suited to the requirements of the school as a whole, the individual teachers and the children whose needs the plan would be expected to address.

As a first step, a questionnaire was given to teachers at their first meeting of the school year, prior to the commencement of the literacy project, to establish some baseline data on how literacy was conceptualised and taught across the school. Thus, questions focused on the amount of time per week that teachers allocated to literacy and how that time was divided, grouping practices, assessment practices, skills emphasised and methods of teaching these skills, the range of literacy contexts employed, quality of resources available, the extent of parental involvement in literacy and teachers' opinions on the range of challenges they faced in their daily teaching of literacy. It also examined school policy in relation to literacy and explored the nature of collaboration amongst class teachers and special education teachers. In addition, it sought to determine to what extent the teaching of literacy in the school mirrored that identified in recent studies on literacy in disadvantaged schools in Ireland and the extent to which such teaching was informed by current research-based best practice. Finally, the current school plan for English was examined to see how it fitted with the English Curriculum 1999 and teachers' practices outlined in the interviews and questionnaire.

Next, information obtained from the questionnaire served as background knowledge for the group interviews with participating classroom and Special Education Teachers (SET) which were conducted as a follow-up in October of year one of the study in order to further elaborate, probe and clarify issues raised in the questionnaire and to establish with the teachers their priorities for the initial change process. These interviews also served to investigate issues not easily addressed in the questionnaire e.g. the school culture and organisation and the beliefs underpinning

teachers' practices. They provided an opportunity to begin to develop a collaborative relationship with teachers and to build credibility with them, which, as Guskey (2003) points out, is a vital step in creating trust and belief in the possibilities of effecting change in outcomes for pupils. It was for this reason that a group interview was conducted first and individual interviews were scheduled a couple of months later in January of year one of the study. The findings from these sources of data are presented in the following sections.

6.1 The Teaching of Literacy

6.1.1 The teaching of reading

The overall approach to the teaching of reading could be described as largely traditional in all classrooms. A well-known basal reading series was in use in the school and all children were reading a book in the series. It emerged in the interviews that the teaching of reading had been delayed in the school in the junior classes. This decision was taken after the staff had participated in the national in-service for the English curriculum (1999) where it was communicated that formal reading instruction should not commence in Junior Infants. This decision meant that the children in this study at the start of First class were meeting for the first time the Senior Infant texts in the series:

> So in a way I'm wondering while I'm following the reading schemes, because we delayed reading here I think it's the way it supposed to be now, they didn't really encounter text that much in Senior Infants. So it's that whole introduction to text, but they seem very ready to approach it. So I've been sort of going through the senior infant programme books with them. (CLST1A/p.15)[1]

In the early part of the year, teachers reported that they utilised an individualised approach and that as they got to know the children, they were put into small groups or partners:

[1] II/MI/FI: Initial, medial, final individual interviews with classroom teacher (ABCD). CL: Group meetings with classroom teachers. CLST Group meetings with class and SET team together. SET: group meetings with SET team teachers (LSABCD)

> I remember it from last year, I had first class last year, and really, you know, at that stage, they're kind of doing a lot of individual reading. So that's quite time-consuming. As XXXX said, they're really only starting, so then there's a kind of a push to try during the year and get them into groups to make it you know more time efficient. (CLST1LSA/ p.10)

When asked how many groups they had and how they determined the composition of each group there was variation among the four classes (QST, Qst.4). In general, after the children who were allocated learning support left the room in the mornings, the teachers divided the remaining children into two groups based on ability, though in one class, the teacher had designed an individual programme for a particularly highly achieving reader.

Assessment

When assigning children to texts and groups, teachers tended to rely on their own observation of children combined with having the children read lists of the sight words from the back of the basal reader:

> Some of them got through it very quickly, but just from watching the responses in the room as well, to their word attack skills, their understanding of print. You know you just kind of pick up really from that, what they're at. (CLST1A/p.19)

> Well, I'd know well by what they could read. There'd be some children that are well able, they're great at decoding words....But then there might be some that are a bit weak and I'd put them with a weaker book like, with an easier book. (IIB/p.28)

In the questionnaire teachers were asked to indicate which of the following assessment tools they used: observation, anecdotal records, published checklists, curriculum profiles, rating scales, portfolios, diagnostic tests, running records and screening instruments. They were also asked to indicate the frequency (daily, weekly, monthly, once or twice a term, never) with which they used them. Observation was the only assessment tool used on a daily basis but the information was not usually documented in the form of anecdotal records. Diagnostic and screening instruments were the remit of the special education team who used them on a yearly basis. Published checklists were the next most popular form of assessment

and were used once or twice a term by three teachers and monthly by another. Teachers were largely unfamiliar with the other forms of assessment though one teacher indicated using running records. In interview it emerged that what she was using was an informal reading inventory acquired abroad but which was at too high a level for the children to read and so it had to be abandoned. This teacher had also tried analysing the errors the children made in order to determine the kinds of word attack skills they needed. Thus teachers were aware of a number of assessment strategies for monitoring children's literacy progress.

Supplementary texts

Teachers also reported using a range of texts in addition to the classroom reader for both higher and lower achieving students:

> I have them on XXX but I also have parallel readers for the very, kind of very good readers, the ones that are just really interested in books. They're relating to books all the time... They'd be on a variety really. Everybody's on something from the school scheme and then it's, some of them are working on the parallel scheme and some of them are working with the supplementary readers. (CLST1A/ p.15.)

Thus, teachers were mindful of the range of diversity within their classroom and tried to give children reading material appropriate to their needs and stage of development. Teachers also recognised that having children on basal reading series was limiting and inappropriate for some in this particular school context:

> T: I wonder like, if our children were exposed to more materials at their own reading level, they'd get a bit of confidence really and that in itself shows them how to transfer from one book, like. You know, 'Here is Mommy', or 'Here is Daddy', or whatever and then all of a sudden you see a child saying 'Oh God, it says here there and it says here there'.
> R: Yeah, they start to notice the pattern.
> T: At least they're starting to notice something. Our kids don't have that chance really. I think we expect them to jump through too many hoops too quickly and nothing has been secured or ... (CLST1LSC p.36-37)

These comments clearly illustrate teachers' concern for the children and show their recognition that children need to be reading texts at the correct instructional level, that they need opportunities to be successful and to gradually take on greater challenges. That is one of the limitations of basal reading series which do not provide

enough opportunities for children to problem-solve as they read nor are they finely graded with sufficient numbers of texts at each level to allow for mastery and success for children before they move onto the next level.

As well as small group work, two teachers reported using paired work. In one of these classes the teacher had paired the more highly achieving readers with partners which children enjoyed, thus reinforcing the social dimension for reading. On seeing the children's positive reaction to this, the teacher remarked that she would try to do it for the lower achievers also:

> I put them into partners, like we'll say out of the fifteen I put them into what I call reading partners say, a week ago, and they were delighted with that, but the bottom five, you couldn't really, you know, well I might try because they were asking me today, it's funny enough, because they see the others with partners. (CLST1A/p.10)

This comment again underscores the need for an appropriate range of texts to be available to the classroom teacher, as children would be quite capable of practising reading texts in pairs were the texts at the correct level for them, rather than requiring the support of the teacher all of the time. In another class, the teacher had paired the children by putting a slightly stronger reader with a weaker reader, thus scaffolding the lower achiever. In this case, children shared a levelled text which had been introduced during shared reading and alternated turns reading it to one another. The school has purchased a number of individual copies of levelled texts under a scheme introduced by the Minister for Education.

Methodologies for guided reading

When asked to describe a typical reading lesson in their classroom (QST. Qst. 27 and first group interview) it was interesting to note that teachers began by discussing word work. As in traditional approaches to reading instruction, teachers reported working through a page or two of the class reader every day. New words from the reader were introduced prior to reading and were often practised using flashcards and by putting the words into sentences. Teachers also indicated that they used games like Bingo and Race Around to consolidate sight word acquisition. Two teachers reported modelling the reading for the children by reading the page aloud first and

then following up by using techniques such as choral reading and echo reading. One teacher indicated that she used a picture walk before reading aloud and encouraged children to discuss the images and make predictions. Two teachers reported asking both literal and inferential questions after the reading. In the Irish context, this finding may also be related to the limited text to be found in early basal readers which are perhaps not interesting enough to warrant a deep exploration of text. The emphasis in small group sessions then was on getting the words right and on reading fluently. This was accomplished though round robin reading, again a typical feature of traditional approaches to reading:

> I've a fulltime classroom assistant. So I'm actually able to get to hear everybody, between the two of us we get to hear everybody reading every day. But anyway, with fifteen to one, usually you would anyway more or less.'(CLST1A/ p.9).

After reading activities were designed to also consolidate sight vocabulary. Children were required to put the words into sentences and this was often the written activity that children did while the teacher worked with the second group. One teacher reported devising worksheets for the children based on the words which involved activities such as cloze procedure, unjumbling the words to make a sentence, and circling the odd one out (Qst. 27, IIB, p.18), rather than using the workbooks:

> I make them up, yeah. The workbooks are good but sometimes they're, you know, you'd have to be explaining for about two hours and then you'd, because then there's only a little bit of work per book but, so you'd have to be getting prepared for three pages to keep them going. (IIB/p.18)

Question 14 on the questionnaire investigated the kinds of skills that teachers were regularly addressing. They were asked to indicate the frequency (often, sometimes, never) with which they taught the alphabet, phonological awareness, phonics, sight vocabulary, vocabulary, fluency and comprehension. Not surprisingly, all teachers indicated that the teaching of phonological awareness and phonics was a high priority. Three of the teachers reported teaching the other skills sometimes while the fourth taught them often. What was surprising was that all teachers were still teaching the alphabet often, but this was explained by school policy. Again in

relation to messages communicated at the in-service for the English Curriculum, teachers had delayed the teaching of reading and so had spread the teaching of the alphabet over two years. In relation to the teaching of phonics, there was a commercial programme and also a phonological awareness programme used throughout the school, though it was being taught with varying degrees of fidelity and teachers were currently exploring other programmes before making a school decision to change. Teachers indicated they were working on consonant-vowel-consonant patterns, word families and blends, though this work was conducted in isolation from the reading material or the teaching of writing, except in the case of one teacher who had short stories based on the phonic pattern she was working on, so children could practice using the sounds taught. Teachers usually taught word skills such as phonics as a whole class lesson when all children were in the room. In the first group interview, teachers suggested that '(children here)....need consistency more so than children in the advantaged schools. You know, so everything has to be done in very tiny steps and very structured you know,' (CLST1LSA/p.37). Teachers reported that children often had trouble connecting the skills they were learning and transferring them to new situations, as in the following comments:

> They haven't made the links at all. I think we have to ... explicitly do it for them and not assume that something is going on, because a lot of the time there isn't, you know, it isn't going on at all. ...(CLST1LSC/ p.35).

> And that's where, you see, you'd come and you'd test them and they, it looks like they haven't, but they have done it. They have done loads of this before. They know they have and they're not applying it. (CLST1LSB/p.35).

Thus, there was quite an emphasis on word work and teachers were working on a mixture of sight vocabulary from the reader and phonic work but did not explicitly mention comprehension strategies:

> At this stage I am including a bit of everything.... But I think, I don't know, I think we've all been sort of doing a lot of pumping in stuff, because they really are just beginning to decode and do different things' (CLST1A/p.9).

In the questionnaire, teachers were also asked to indicate how they approached the teaching of each skill (explain how the skill will enhance reading and writing; demonstrate using think aloud; apply the skill in context of a worksheet; apply the skill in context of reading and writing; reflect on the skill and explain how you used it) and how often they engaged children in practicing it (daily, a few times a week, once or twice a month or never). This question was structured to get a sense of how much explanation, direct teaching, application to context and emphasis on metacognitive strategies occurred in instructional approaches. This was a difficult question to interpret and it may well be that the way in which it was structured on the questionnaire was not entirely clear. Two teachers reported explaining on a daily basis how the skill would enhance reading and writing and indicated that they also demonstrated this through a think aloud while the other two reported doing this a few times a week. In relation to application of the skill on either a worksheet or in reading and writing contexts, three indicated that they did this a few times a week and 1 teacher reported doing so once to twice a month indicating infrequent use of this strategy. In relation to the reflective element one teacher reported never engaging children in this activity, two reported once or twice a month and the fourth indicated a few times a week.

Read aloud

Apart from reading lessons focused on the reader and specific skills, teachers reported that they also read aloud to children. Three of the teachers indicated that they read aloud daily to their class and the fourth teacher indicated that she read aloud two/three times weekly (QST. Q.13). A variety of genres were shared with the children including traditional tales, a range of fiction including picture books, short chapter books, big books, poetry, bible stories and a range of non-fiction books. Each classroom teacher was provided with a box of books from the school library which was then rotated every couple of weeks between classes of the same level, thus ensuring a regular fresh supply of books. The book selection was put together by one of the SET team who had a special interest in children's literature: 'we're given a box of library books from our school library, XXXX looks after that. And they're, I mean she's brilliant at picking books, I mean she's a real passion about books' (IIA/p.26). One teacher read aloud daily as the children were eating their lunch and

used it as an opportunity for children to enjoy a story and just let the words wash over them: 'Yeah, I read while they're eating. I don't really, I don't view it as a real teaching tool. I use it as time just to hear. Let it flow over them' (IIA/p.28). Another teacher matched her read aloud to themes she was exploring in S.E.S.E. and had her own selection of books sourced from her time teaching abroad which she had subsequently shipped home at considerable personal expense. She also used the formal library time in the school library to read fiction books aloud. Another used the read aloud more as a teaching tool, asking questions before, during and after reading and sometimes followed up with a role play or art activity. These read aloud texts were usually at a level that children would have difficulty reading independently but which were matched to their interests and were chosen to expose them to new language, vocabulary and ideas. Teachers reported that these were often the books that the children returned to in independent reading and which children opted to take home to share with family.

Independent reading

In addition, teachers provided opportunities for children to self-select books and read independently. Responses to this item on the questionnaire were at variance with findings from the interviews. Frequency varied from once a week to two/three times weekly and once or twice a month in the case of one teacher (Qst, Q.13). In the case of the latter teacher, it emerged in interview that children were in fact encouraged to read books of their own choice on a daily basis and a system was in place to allow children to take books of their own choice home to share two/three times a week. All classes had a time weekly to visit the school library which had recently been renovated and stocked with newly purchased books. Teachers noted that in the case of most children the books in the classroom and school libraries were at too high a reading level to read independently:

> But a lot of the books that are in the library, they take the book, look at it and then it's too, you know... they're picture books that I'd be reading to them 'cause they're above their level. So I tell them to take a picture walk and, you know, try and read the pictures... it's just they're not very motivated by that sometimes, (IID/p.38).

> They're just reading the pictures and they're not connecting with anything so these books (PM+) are great. You know, and as well, you have to start, to get any benefit from a book you have to have 95% accuracy so that's not happening with those other books so the PM books are great. So I have them all in the library now...(IIB/p.32)

Teachers felt that a wider stock of books at an independent level was required so that children could experience the kind of confidence, success and motivation experienced by the Reading Recovery children who were reading appropriate books on their level every day:

> The thing that's missing, that I notice in the Reading Recovery kids is that the books they can just pick up and read themselves...and the thrill they get from that, or realising that actually they can make sense of something all on their own' (IIA/p.35)

One can see then that in relation to the teaching of reading, teachers utilised several contexts including lessons involving the formal reading scheme, read aloud and independent reading. There was also an emphasis on word level skills such as phonological awareness, phonics and sight vocabulary, all of which were taught in a largely traditional manner.

6.1.2 The teaching of writing

At the start of the year, at the time the first group interview occurred and the questionnaire was administered, three teachers reported that their primary focus in the teaching of writing was on particular skills rather than on the composition of writing. One of the teachers was concentrating on handwriting mainly, and had not yet tried any composing with her pupils:

> Writing wise, now their letter formation and everything wasn't great, so I've been concentrating a good bit on that for the moment to get that up and running. So I can't say I've hit into creative writing or anything like that because I'm so focussed on getting the formation, because I think they need a lot of that. (CLST1A/p.9)

Our News was the focus of writing with another class and took place three times a week – on Monday, mid-week and on Friday. As is the norm in this activity, children told their news to the teacher who wrote it up on the board and the children then copied it down into their copies. The emphasis was on neat handwriting and repeated exposure to sight vocabulary. A third teacher also did Our News and combined it with daily sentence or paragraph writing based on words from the class reader. Her views of the children's ability to write creatively were illustrative of most teachers:

> I do writing based on like Our News, and whatever sight word we'd be doing, like 'it is' or whatever, just putting them into sentences. Or like the cloze procedure, just a paragraph with a few words missing that they have to fill in the right words. But it's all based on the reader, so they can read everything. They wouldn't be able to write anything creative. You know, they can just about write very simple stuff. (CLST1B/p.14-15)

In the fourth class, children who were perceived to be higher achievers were afforded the opportunity to compose short pieces based on writing prompts, which the teacher had devised in relation to a story read or a theme being explored in S.E.S.E.

> The strong group, I've given them prompts before, just relating to the story and they've written, you know, they seem to be quite able to write with guidelines and details and things like that...Well the story was *The Big Red Bike*, and I'd ask them to write about their bike or what they wanted to have. They were able to tell me where they got it, who they go with, where they go, why, when, you know that kind of thing.... you know, we'll do one on Halloween as well. As the writing comes out of the SESE a lot as well, just whatever topic I'm doing, we do a lot of writing on that. (CLST1D/p.16-17)

This teacher had also provided the children with 'writing tools' which helped them in the act of composing e.g. personal word lists and lists of sight vocabulary and when assessing their writing she noted whether or not they had used their tools.

While a process approach to the teaching of writing is recommended in the curriculum, evaluations have shown that schools are having difficulty adapting to this approach and are in need of further support to do so. These reports have indicated that a process approach was in evidence in less than half of the schools in the studies (DES, 2005b, 2002), that mechanical skills were taught in isolation rather

than being woven into the writing context, and that a greater focus on the emotional and imaginative side of the child was needed.

6.1.3 Time for literacy

There was a difference in the time allocated to literacy reported by teachers in the questionnaire compared with what they said in the group interview. Teachers' responses to the questionnaire item are summarised in Table 6.1. The figures range from just over six and a half hours to almost 11 hours. In interviews it was clear that the times given in the questionnaire were more a reflection of time spent on reading, writing and oral language across the curriculum and were not dedicated times for English literacy per se. In general teachers spent about an hour a day on literacy, which is just over the recommended weekly time (four hours) for English in the curriculum guidelines (DES, 1999).

Table 6.1 Weekly time allocated to literacy by each classroom teacher as indicated by Qst.5/6 on the questionnaire

Teacher	Total: (Oral language, reading, writing)	Reading	Writing
A	10 hours	5 hours	5 hours
B	8 hours 30 minutes	5 hours	3 hours 30 minutes
C	10 hours 50 minutes	3 hours 40 minutes	3 hours
D	6 hours 40 minutes	1 hour 40 minutes	1 hour 40 minutes

Teachers were used to working in small chunks of time and broke literacy instruction up, covering different aspects at various times throughout the day. Only one of the four teachers reported that she had a daily 90-minute block for literacy which she too had divided up into chunks (word work, reading, writing), partly out of necessity due to the interruptions of children coming and going to support classes and the times set aside for lunch breaks.

6.2 School Level Factors in Relation to Literacy

6.2.1 Provision for learning support

Children were allocated extra support in reading in First class based on the results of the Middle Infant Screening Test (discussed in chapter seven) which was administered toward the end of Senior Infants. Children who scored poorly on that test were re-tested by the SET team on a number of skills in September of First class and then allocated support based on priority and space available. A small number of children had had educational assessments and had been allocated resource hours outside the classroom and two of these had been allocated a special needs assistant within the classroom. A withdrawal model was in place with the learning support and resource hours always delivered outside of the regular classroom. In addition, 4 children were assigned to the official Reading Recovery programme and as the Reading Recovery teacher was also the SET teacher for Traveller children, two more children were also given Reading Recovery but this usually occurred in pairs rather than individually. Thus, due to the diverse needs of the children and the fact that there were a number of different kinds of support available, a child could be allocated to one of four programmes (learning support, Reading Recovery, resource teaching, resource teaching for Traveller children); so often times a classroom teacher would have to liaise with four different teachers. One teacher expressed the view that she quite liked the interaction with four different teachers for support and she viewed it as an opportunity for herself to learn: 'And it's interesting having the kids going to say three or four different Learning Support because you get loads of hints from all the different things you see them coming back with' (IIA/ p.20).

Teachers were also asked if they felt the withdrawal model affected children's self esteem. All teachers felt that it did not negatively affect children and that in fact they enjoyed the extra attention. As one teacher put it:

> Like I know in some schools, in like a middle class area, if they saw one person leaving, but when they see eight leaving together, it kind of takes away the whole 'I'm the only one'....no it doesn't do their self-esteem any harm at all...I think they like going off and they're all happy going off with their books and everything. And they always get books in their own folder, so they're made a bit of fuss of as well. (IIB/p.50)

All teachers reported that children attending support teaching also received reading instruction within the classroom either on return or at a later time of the day. Teachers were very conscious of ensuring that these children got reading 'on the double' and indeed in classes where there was a special needs assistant (S.N.A.), they got a 'triple dose' (Knapp, 1995) as the S.N.A. often listened to them reading, either before or after they worked with the teacher.

6.2.2 Collaboration

On the questionnaire, teachers were asked to rate their level of collaboration with teachers within the same class level, with teachers of other class levels and with the SET team, on a five-point scale (with 5 signalling a high level). There was variation between teachers' written responses to these items and those communicated in interview. Within their own class level, one teacher reported a level five and the other three rated it a two or a three, indicating relatively low levels of collaboration. Rates for levels of co-operation across class levels were, not surprisingly, lower, ranging from one to four. While monthly planning meetings were to be accommodated for 45-minute periods, these often did not occur or got cancelled for various reasons. This lack of a predictable and consistent time to plan meant that, when planning time was actually available, it was not used as well as it could have been as meetings were held too far apart for any follow-through and teachers often discussed other subjects as well as literacy:

> It's catch-up.... So you wouldn't get an awful lot done. But that forty-five minutes is supposed to cover every subject that everybody is supposed to be doing. And it's ridiculous. And then sometimes it just works as information.... But we do talk about it really up in the corridor in the mornings when the kids are settling in, that kind of thing, is when we mostly, it's just kind of really rushed as well, or in the afternoon after school (IIA/p 23).

It was clear that teachers valued the idea of collaboration and would welcome more regular opportunities to plan collectively, share ideas and resources and address common instructional issues. They felt it would reduce the isolation and loneliness involved in teaching. They also felt that it would be helpful to know that others were also experiencing similar challenges and to consider how they had dealt with them:

> It'd be great to share ideas because you know the way you're working there, you'd love to hear other ideas that worked and expand your knowledge about it (IIB/p.43).

> No that would be good. Or even just when we're together, just talking about the different things we notice....I find when we're in a group, it's handy to know what's going on with other classes and then I think, 'Oh that's happening in my class too' (IID/p.6)

It was also apparent that teachers communicated informally before, during and after school, particularly teachers who worked next door to each other: 'I'd work quite closely with XXXX next door. So, that works very well. She discovers something and passes it in and I'd pass it over too....'(IIA/p.23). Interestingly, when asked to determine priorities for change, one of the areas mentioned (by one teacher) was more planning time and time for reflection (QST. Qst.30)

When asked about the level of collaboration with support teachers, classroom teachers again gave conflicting responses in interview to those given on the questionnaire. On a five-point scale (with five signalling a high level of collaboration) three of the four teachers rated their collaboration at a four and one rated it as a two (Qst.27). However, in interviews it became clear that there were in fact very few opportunities for classroom teachers to communicate with support teachers for a variety of reasons. One was the fact that there was no regularly scheduled time in the school timetable for class and support teachers to meet to discuss the child's needs, plan instructional approaches collaboratively or keep each other informed of their current instructional focus, approaches being taken and individual progress. Oftentimes, teachers would have brief conversations on the run in corridors or when children were being picked up or dropped off from learning support. The following comments are illustrative:

> Em, a certain amount. I'd have the gist of what they're doing and I definitely see a marked improvement....But they, I wouldn't know exactly, they would tell us all right, they'd say, 'We're working on this, this and this' or 'We're working on the first ten words of the Dolch' but again it's just time, trying to ...(IIA/p.20/21)

> Very rarely. We sort of have more chats at the door and see how we're getting on, you know we don't, very often, like at the start of the year we

> did, we did have a meeting early September, just to see the programme that they would be going through (IIC/p.29)

This is not surprising given the short school day and the heavily loaded curriculum in Irish primary schools. There is no available time in schools for teachers to have regular meaningful conversations, though some teachers in this school went to great lengths to brief each other staying back after school hours and using lunch breaks to discuss issues. All of the classroom teachers felt that more contact with the SET team would be helpful.

6.2.3 Collegiality

In the school in this study, there was a real sense from the outset that despite the challenging working conditions, teachers got on very well together and were very supportive of each other. There were many instances of this. Firstly, the junior and senior infant staff were willing to give up some of their own planning time to facilitate the monthly meeting for the first and second class teachers. In addition, the teachers involved in the study offered to meet after school in order to facilitate the planning and implementation of the change process. They were willing to give up their own free time and were conscious of not over-burdening colleagues for release time (field notes CLST1). Secondly, they could debate issues in a good-natured way:

> 'Today there was a debate around how best to achieve a baseline sample of writing that would be fair and truly representative of the children's writing level. Evidence of good working relationships between teachers: they are not afraid to speak their minds; they can debate without getting upset with each other and they affirm one another. They tease through all of the dimensions and have the ability to reach a consensus that everyone can live with' (CLST1).

Thirdly, teachers often complimented each other (e.g. the work that the SET team were doing with children was affirmed) and during interviews and group discussions acknowledged good practice they had noticed and indicated when and how they had learned from each other. It was obvious that they respected each other and did their best to support one other. Finally, there was a mentoring system in place, where

teachers new to the school and newly qualified teachers were inducted onto staff by older and more experienced colleagues.

It was clear from the teachers that they were very committed to teaching in the school and several of them had been there for many years. It was also communicated in interview that they had tried various approaches over the years in efforts to address the low achievement of the children but had had limited success. They felt strongly that they needed instructional support and guidance on how best to address the range of difficulties that children presented with, as evidenced by the following comment delivered passionately after a teacher had returned from a conference:

> It was uplifting to be surrounded by people who were interested in getting children to read...there was an attitude of can do and will do which we have as *individual* members of staff but I think as a group sometimes....that's where we are falling down. It's not lack of commitment, I feel that terribly strongly. Our children are in desperate need of literacy, the more we test them the more we realise... And then you see everyone is running around, charging around doing this thing for that child, running across the yard with an umbrella with another child, we are not reaping the benefits (CLST2LSC/p.1)

This comment captures the energy and commitment of the staff but also their feelings of frustration at not being able to collectively address the issues. The development of in-school capacity and instructional leadership in literacy was thus a major priority for the change process

6.2.4 Teacher perceptions of factors impacting on achievement

Question 16 on the questionnaire asked teachers to consider what factors were impinging on children's literacy achievement and to rate them accordingly (large effect, moderate effect or little/no effect). Space was provided for teachers to add their own ideas if they were not already addressed on the list. Three of the teachers were in agreement that children's oral language skills had a major effect. This was reiterated at the first group interview where teachers mentioned that children in disadvantaged areas start school very early (typically at four years of age) and

vocabulary taught in school was not necessarily within children's speaking vocabulary or used again at home:

> They're very young and they're not getting any backup at home. You know the words they're hearing at school during the day, are not being consolidated again, they're not reading it, like you know, a bedtime story or that gap is still hugely there in their lives. (CLST1LSD/p.38)

Teachers were also in agreement that another impediment was the lack of parental involvement. This was cited as having a large effect by three teachers and a moderate effect by one. There was wide variability in the level of parental support with some parents working consistently on homework and others not getting involved at all. Another teacher remarked that some children were chaotic and disorganised, did not bring books back from home and often did not complete homework. Another teacher commented on the fact that children in general had trouble persisting at tasks and really wanted to be 'spoon-fed':

> And they just, they really just want to be spoon-fed, some of them, they just want to be told what to do. Because maybe that's a reflection of what happens in the home. They're told 'Do this, do that'. But they're finding it hard to be independent. (CLST1LSB/p.48)

In addition, in a small number of cases, teachers indicated parents' own level of literacy was also a barrier to involvement in homework. Teachers felt that there was a lot the school could do to reach out to parents. Three teachers suggested that more meetings focusing on showing parents how to support their child at home would be of benefit e.g. how to do a picture walk, the kinds of questions to ask while reading and how to interact during reading, and to share teacher expertise with parents. Others suggested the value of encouraging parents to read bedtime stories to the children. Teachers recognised the need to reach out more to parents, particularly the ones who did not engage with the school. One teacher had invited the parents into the school in small groups or individually according to their children's ability and had shown parents how to work with the child on homework.

Poor attendance was another factor cited as having a large negative effect on teaching by three teachers and little or no effect by the fourth teacher. Poor

attendance and lack of parental involvement have been reported elsewhere as impacting on literacy (DES, 2005, Eivers et al., 2004) and are the focus of current government initiatives in disadvantage such as the DEIS strategy (DES, 2005) and the establishment of the National Education Welfare Board which tracks school attendance. On examination of attendance records for the school, it emerged that some of the children in the study had several years of poor attendance which must certainly have contributed to low literacy skills, as well as being symptomatic of other problems.

Poor discipline was rated as having a large negative effect on instruction by two of the teachers and as having a moderate negative effect in the other two classes. In one of the classes where discipline was a problem there was a very high concentration of children with special needs, poor attendance, and very troubled home backgrounds. This teacher reported often that time was wasted in settling the class and getting them to work co-operatively both with her and independently in small groups. There was constant interrupting, calling out of turn and squabbling over tasks. Despite issues related to discipline, there was a positive approach to discipline in most classrooms with teachers rarely raising their voices or descending into negative exchanges with challenging children. Constructive classroom environments were cultivated and it was clear that children felt comfortable in asking questions and interacting with teachers and peers in the classroom: 'A lovely warm atmosphere in this room. XXXX is so tuned into the kids and their particular circumstances and needs. She gives to each one what they need. Is never harsh or sharp with a student' (field notes: November First class).

Three teachers felt that lack of classroom resources had a moderate negative effect on the quality of teaching. It emerged (QST. Qst.19) that there were very few resources in the classroom geared toward interactive teaching: e.g. overhead projectors, sets of individual magnetic whiteboards and letters. Large magnetic whiteboards were however on order for each classroom. Classroom libraries were poorly stocked with a range of between 40 and 60 books per room. Three classrooms had computers and two of these also had literacy software and there was a reasonably up to date computer room in the school to which each class had access each week.

Two other factors were cited in response to the questionnaire, as impacting negatively on instruction. One was the huge diversity in ability found in each classroom which teachers were finding difficult to cater for. The second was the pressure of having such limited time for literacy.

In relation to teachers' perceptions of children's motivation and engagement in reading, various perspectives emerged in the interviews. Some children seemed to love to read and were anxious to take books home and others did not seem to take an interest at all. Teachers reported that the books the children requested for home were very often the ones that had been read aloud in class and children were thus familiar with them:

> Well even though they know that those ones you know they can read with their parents or that they're not expected to read those, but it's still that thing about some kids practice and read books, other kids, some of them, it's like you get the same group of kids really interested in taking home, some won't ...(IIA/p.17)

In one class a child attending learning support had consistently asked for books to take home even though she could not read them. She was receiving help from an older sibling and her parents. Factors contributing to some children's lack of interest in books may relate to low levels of parental involvement, the fact that most of the books available in the classroom and all in the school library were above children's reading levels and the children's own perceptions of themselves as readers. In addition, many children had not yet broken the code and were at the very early stages of reading and as such had not yet discovered the joy of reading independently. Children's performance on early literacy skills in relation to reading and writing are presented in the next chapter and serve as useful baseline data against which to measure future progress in literacy.

7 CHILDREN'S ACHIEVEMENT PRIOR TO THE STUDY

This chapter is divided into four sections. It presents analysis of children's achievement on a range of literacy measures prior to the start of the study, in line with the research on professional development presented in chapter two which recommends focussing on student achievement as a starting point for professional development. First, the results of the Middle Infant Screening Test (MIST, Hannavy, 1993), administered towards the end of the previous school year, are presented. Subsequently, writing samples were obtained for each child in October of First class in order to establish baseline data in writing prior to the introduction of the writing workshop. These were assessed using the Criterion Scale (Wilson, 2002) and are presented in section two. The third and fourth sections present the analysis of the Drumcondra Sentence Reading Test (DSRT, 2002) and Marie Clay Observation Survey of Early Literacy Achievement (OS, 2002), which were administered in January of First class prior to the introduction of changes to the reading programme.

7.1 Performance on the Middle Infant Screening Test (Senior Infants)

The Middle Infant Screening Test (MIST, Hannavy, 1993) was used annually in the school to screen children for difficulties in early literacy skills towards the end of the senior infant year. As outlined in chapter five, the MIST has six sub-tests: listening skills (2 sub-tests), letter sounds, written vocabulary, three-phoneme words and sentence dictation. In addition, the number of letter reversals a child makes throughout the tests can be documented. As can be seen from Table 7.1, of the 56 pupils tested, the mean score of the group was marginally above the cut-off point for two of the sub-tests - listening skills and letter sounds - and below the cut-off point for the other three, indicating difficulties with some of the important pre-requisite skills for literacy. In the case of the sentence dictation sub-test, the mean score was substantially below the cut-off point of 18 but the scores on this test were widely dispersed as indicated by the large standard deviation.

6 LITERACY PEDAGOGY PRIOR TO START OF THE STUDY

In line with professional development models focused on improving school achievement outcomes, outlined in chapter two (Guskey, 2003, Loucks-Horsley et al., 2003), this study began with an investigation into the school context. This was approached in a number of ways in order to create as full a picture as possible of the current context so that whatever plan was put in place would be suited to the requirements of the school as a whole, the individual teachers and the children whose needs the plan would be expected to address.

As a first step, a questionnaire was given to teachers at their first meeting of the school year, prior to the commencement of the literacy project, to establish some baseline data on how literacy was conceptualised and taught across the school. Thus, questions focused on the amount of time per week that teachers allocated to literacy and how that time was divided, grouping practices, assessment practices, skills emphasised and methods of teaching these skills, the range of literacy contexts employed, quality of resources available, the extent of parental involvement in literacy and teachers' opinions on the range of challenges they faced in their daily teaching of literacy. It also examined school policy in relation to literacy and explored the nature of collaboration amongst class teachers and special education teachers. In addition, it sought to determine to what extent the teaching of literacy in the school mirrored that identified in recent studies on literacy in disadvantaged schools in Ireland and the extent to which such teaching was informed by current research-based best practice. Finally, the current school plan for English was examined to see how it fitted with the English Curriculum 1999 and teachers' practices outlined in the interviews and questionnaire.

Next, information obtained from the questionnaire served as background knowledge for the group interviews with participating classroom and Special Education Teachers (SET) which were conducted as a follow-up in October of year one of the study in order to further elaborate, probe and clarify issues raised in the questionnaire and to establish with the teachers their priorities for the initial change process. These interviews also served to investigate issues not easily addressed in the questionnaire e.g. the school culture and organisation and the beliefs underpinning

teachers' practices. They provided an opportunity to begin to develop a collaborative relationship with teachers and to build credibility with them, which, as Guskey (2003) points out, is a vital step in creating trust and belief in the possibilities of effecting change in outcomes for pupils. It was for this reason that a group interview was conducted first and individual interviews were scheduled a couple of months later in January of year one of the study. The findings from these sources of data are presented in the following sections.

6.1 The Teaching of Literacy

6.1.1 The teaching of reading

The overall approach to the teaching of reading could be described as largely traditional in all classrooms. A well-known basal reading series was in use in the school and all children were reading a book in the series. It emerged in the interviews that the teaching of reading had been delayed in the school in the junior classes. This decision was taken after the staff had participated in the national in-service for the English curriculum (1999) where it was communicated that formal reading instruction should not commence in Junior Infants. This decision meant that the children in this study at the start of First class were meeting for the first time the Senior Infant texts in the series:

> So in a way I'm wondering while I'm following the reading schemes, because we delayed reading here I think it's the way it supposed to be now, they didn't really encounter text that much in Senior Infants. So it's that whole introduction to text, but they seem very ready to approach it. So I've been sort of going through the senior infant programme books with them. (CLST1A/p.15)[1]

In the early part of the year, teachers reported that they utilised an individualised approach and that as they got to know the children, they were put into small groups or partners:

[1] II/MI/FI: Initial, medial, final individual interviews with classroom teacher (ABCD). CL: Group meetings with classroom teachers. CLST Group meetings with class and SET team together. SET: group meetings with SET team teachers (LSABCD)

> I remember it from last year, I had first class last year, and really, you know, at that stage, they're kind of doing a lot of individual reading. So that's quite time-consuming. As XXXX said, they're really only starting, so then there's a kind of a push to try during the year and get them into groups to make it you know more time efficient. (CLST1LSA/ p.10)

When asked how many groups they had and how they determined the composition of each group there was variation among the four classes (QST, Qst.4). In general, after the children who were allocated learning support left the room in the mornings, the teachers divided the remaining children into two groups based on ability, though in one class, the teacher had designed an individual programme for a particularly highly achieving reader.

Assessment

When assigning children to texts and groups, teachers tended to rely on their own observation of children combined with having the children read lists of the sight words from the back of the basal reader:

> Some of them got through it very quickly, but just from watching the responses in the room as well, to their word attack skills, their understanding of print. You know you just kind of pick up really from that, what they're at. (CLST1A/p.19)

> Well, I'd know well by what they could read. There'd be some children that are well able, they're great at decoding words....But then there might be some that are a bit weak and I'd put them with a weaker book like, with an easier book. (IIB/p.28)

In the questionnaire teachers were asked to indicate which of the following assessment tools they used: observation, anecdotal records, published checklists, curriculum profiles, rating scales, portfolios, diagnostic tests, running records and screening instruments. They were also asked to indicate the frequency (daily, weekly, monthly, once or twice a term, never) with which they used them. Observation was the only assessment tool used on a daily basis but the information was not usually documented in the form of anecdotal records. Diagnostic and screening instruments were the remit of the special education team who used them on a yearly basis. Published checklists were the next most popular form of assessment

and were used once or twice a term by three teachers and monthly by another. Teachers were largely unfamiliar with the other forms of assessment though one teacher indicated using running records. In interview it emerged that what she was using was an informal reading inventory acquired abroad but which was at too high a level for the children to read and so it had to be abandoned. This teacher had also tried analysing the errors the children made in order to determine the kinds of word attack skills they needed. Thus teachers were aware of a number of assessment strategies for monitoring children's literacy progress.

Supplementary texts

Teachers also reported using a range of texts in addition to the classroom reader for both higher and lower achieving students:

> I have them on XXX but I also have parallel readers for the very, kind of very good readers, the ones that are just really interested in books. They're relating to books all the time... They'd be on a variety really. Everybody's on something from the school scheme and then it's, some of them are working on the parallel scheme and some of them are working with the supplementary readers. (CLST1A/ p.15.)

Thus, teachers were mindful of the range of diversity within their classroom and tried to give children reading material appropriate to their needs and stage of development. Teachers also recognised that having children on basal reading series was limiting and inappropriate for some in this particular school context:

> T: I wonder like, if our children were exposed to more materials at their own reading level, they'd get a bit of confidence really and that in itself shows them how to transfer from one book, like. You know, 'Here is Mommy', or 'Here is Daddy', or whatever and then all of a sudden you see a child saying 'Oh God, it says here there and it says here there'.
> R: Yeah, they start to notice the pattern.
> T: At least they're starting to notice something. Our kids don't have that chance really. I think we expect them to jump through too many hoops too quickly and nothing has been secured or ... (CLST1LSC p.36-37)

These comments clearly illustrate teachers' concern for the children and show their recognition that children need to be reading texts at the correct instructional level, that they need opportunities to be successful and to gradually take on greater challenges. That is one of the limitations of basal reading series which do not provide

enough opportunities for children to problem-solve as they read nor are they finely graded with sufficient numbers of texts at each level to allow for mastery and success for children before they move onto the next level.

As well as small group work, two teachers reported using paired work. In one of these classes the teacher had paired the more highly achieving readers with partners which children enjoyed, thus reinforcing the social dimension for reading. On seeing the children's positive reaction to this, the teacher remarked that she would try to do it for the lower achievers also:

> I put them into partners, like we'll say out of the fifteen I put them into what I call reading partners say, a week ago, and they were delighted with that, but the bottom five, you couldn't really, you know, well I might try because they were asking me today, it's funny enough, because they see the others with partners. (CLST1A/p.10)

This comment again underscores the need for an appropriate range of texts to be available to the classroom teacher, as children would be quite capable of practising reading texts in pairs were the texts at the correct level for them, rather than requiring the support of the teacher all of the time. In another class, the teacher had paired the children by putting a slightly stronger reader with a weaker reader, thus scaffolding the lower achiever. In this case, children shared a levelled text which had been introduced during shared reading and alternated turns reading it to one another. The school has purchased a number of individual copies of levelled texts under a scheme introduced by the Minister for Education.

Methodologies for guided reading

When asked to describe a typical reading lesson in their classroom (QST. Qst. 27 and first group interview) it was interesting to note that teachers began by discussing word work. As in traditional approaches to reading instruction, teachers reported working through a page or two of the class reader every day. New words from the reader were introduced prior to reading and were often practised using flashcards and by putting the words into sentences. Teachers also indicated that they used games like Bingo and Race Around to consolidate sight word acquisition. Two teachers reported modelling the reading for the children by reading the page aloud first and

then following up by using techniques such as choral reading and echo reading. One teacher indicated that she used a picture walk before reading aloud and encouraged children to discuss the images and make predictions. Two teachers reported asking both literal and inferential questions after the reading. In the Irish context, this finding may also be related to the limited text to be found in early basal readers which are perhaps not interesting enough to warrant a deep exploration of text. The emphasis in small group sessions then was on getting the words right and on reading fluently. This was accomplished though round robin reading, again a typical feature of traditional approaches to reading:

> I've a fulltime classroom assistant. So I'm actually able to get to hear everybody, between the two of us we get to hear everybody reading every day. But anyway, with fifteen to one, usually you would anyway more or less.'(CLST1A/ p.9).

After reading activities were designed to also consolidate sight vocabulary. Children were required to put the words into sentences and this was often the written activity that children did while the teacher worked with the second group. One teacher reported devising worksheets for the children based on the words which involved activities such as cloze procedure, unjumbling the words to make a sentence, and circling the odd one out (Qst. 27, IIB, p.18), rather than using the workbooks:

> I make them up, yeah. The workbooks are good but sometimes they're, you know, you'd have to be explaining for about two hours and then you'd, because then there's only a little bit of work per book but, so you'd have to be getting prepared for three pages to keep them going. (IIB/p.18)

Question 14 on the questionnaire investigated the kinds of skills that teachers were regularly addressing. They were asked to indicate the frequency (often, sometimes, never) with which they taught the alphabet, phonological awareness, phonics, sight vocabulary, vocabulary, fluency and comprehension. Not surprisingly, all teachers indicated that the teaching of phonological awareness and phonics was a high priority. Three of the teachers reported teaching the other skills sometimes while the fourth taught them often. What was surprising was that all teachers were still teaching the alphabet often, but this was explained by school policy. Again in

relation to messages communicated at the in-service for the English Curriculum, teachers had delayed the teaching of reading and so had spread the teaching of the alphabet over two years. In relation to the teaching of phonics, there was a commercial programme and also a phonological awareness programme used throughout the school, though it was being taught with varying degrees of fidelity and teachers were currently exploring other programmes before making a school decision to change. Teachers indicated they were working on consonant-vowel-consonant patterns, word families and blends, though this work was conducted in isolation from the reading material or the teaching of writing, except in the case of one teacher who had short stories based on the phonic pattern she was working on, so children could practice using the sounds taught. Teachers usually taught word skills such as phonics as a whole class lesson when all children were in the room. In the first group interview, teachers suggested that '(children here)....need consistency more so than children in the advantaged schools. You know, so everything has to be done in very tiny steps and very structured you know,' (CLST1LSA/p.37). Teachers reported that children often had trouble connecting the skills they were learning and transferring them to new situations, as in the following comments:

> They haven't made the links at all. I think we have to ... explicitly do it for them and not assume that something is going on, because a lot of the time there isn't, you know, it isn't going on at all. ...(CLST1LSC/ p.35).

> And that's where, you see, you'd come and you'd test them and they, it looks like they haven't, but they have done it. They have done loads of this before. They know they have and they're not applying it. (CLST1LSB/p.35).

Thus, there was quite an emphasis on word work and teachers were working on a mixture of sight vocabulary from the reader and phonic work but did not explicitly mention comprehension strategies:

> At this stage I am including a bit of everything.... But I think, I don't know, I think we've all been sort of doing a lot of pumping in stuff, because they really are just beginning to decode and do different things' (CLST1A/p.9).

In the questionnaire, teachers were also asked to indicate how they approached the teaching of each skill (explain how the skill will enhance reading and writing; demonstrate using think aloud; apply the skill in context of a worksheet; apply the skill in context of reading and writing; reflect on the skill and explain how you used it) and how often they engaged children in practicing it (daily, a few times a week, once or twice a month or never). This question was structured to get a sense of how much explanation, direct teaching, application to context and emphasis on metacognitive strategies occurred in instructional approaches. This was a difficult question to interpret and it may well be that the way in which it was structured on the questionnaire was not entirely clear. Two teachers reported explaining on a daily basis how the skill would enhance reading and writing and indicated that they also demonstrated this through a think aloud while the other two reported doing this a few times a week. In relation to application of the skill on either a worksheet or in reading and writing contexts, three indicated that they did this a few times a week and 1 teacher reported doing so once to twice a month indicating infrequent use of this strategy. In relation to the reflective element one teacher reported never engaging children in this activity, two reported once or twice a month and the fourth indicated a few times a week.

Read aloud

Apart from reading lessons focused on the reader and specific skills, teachers reported that they also read aloud to children. Three of the teachers indicated that they read aloud daily to their class and the fourth teacher indicated that she read aloud two/three times weekly (QST. Q.13). A variety of genres were shared with the children including traditional tales, a range of fiction including picture books, short chapter books, big books, poetry, bible stories and a range of non-fiction books. Each classroom teacher was provided with a box of books from the school library which was then rotated every couple of weeks between classes of the same level, thus ensuring a regular fresh supply of books. The book selection was put together by one of the SET team who had a special interest in children's literature: 'we're given a box of library books from our school library, XXXX looks after that. And they're, I mean she's brilliant at picking books, I mean she's a real passion about books' (IIA/p.26). One teacher read aloud daily as the children were eating their lunch and

used it as an opportunity for children to enjoy a story and just let the words wash over them: 'Yeah, I read while they're eating. I don't really, I don't view it as a real teaching tool. I use it as time just to hear. Let it flow over them' (IIA/p.28). Another teacher matched her read aloud to themes she was exploring in S.E.S.E. and had her own selection of books sourced from her time teaching abroad which she had subsequently shipped home at considerable personal expense. She also used the formal library time in the school library to read fiction books aloud. Another used the read aloud more as a teaching tool, asking questions before, during and after reading and sometimes followed up with a role play or art activity. These read aloud texts were usually at a level that children would have difficulty reading independently but which were matched to their interests and were chosen to expose them to new language, vocabulary and ideas. Teachers reported that these were often the books that the children returned to in independent reading and which children opted to take home to share with family.

Independent reading

In addition, teachers provided opportunities for children to self-select books and read independently. Responses to this item on the questionnaire were at variance with findings from the interviews. Frequency varied from once a week to two/three times weekly and once or twice a month in the case of one teacher (Qst, Q.13). In the case of the latter teacher, it emerged in interview that children were in fact encouraged to read books of their own choice on a daily basis and a system was in place to allow children to take books of their own choice home to share two/three times a week. All classes had a time weekly to visit the school library which had recently been renovated and stocked with newly purchased books. Teachers noted that in the case of most children the books in the classroom and school libraries were at too high a reading level to read independently:

> But a lot of the books that are in the library, they take the book, look at it and then it's too, you know... they're picture books that I'd be reading to them 'cause they're above their level. So I tell them to take a picture walk and, you know, try and read the pictures... it's just they're not very motivated by that sometimes, (IID/p.38).

> They're just reading the pictures and they're not connecting with anything so these books (PM+) are great. You know, and as well, you have to start, to get any benefit from a book you have to have 95% accuracy so that's not happening with those other books so the PM books are great. So I have them all in the library now...(IIB/p.32)

Teachers felt that a wider stock of books at an independent level was required so that children could experience the kind of confidence, success and motivation experienced by the Reading Recovery children who were reading appropriate books on their level every day:

> The thing that's missing, that I notice in the Reading Recovery kids is that the books they can just pick up and read themselves...and the thrill they get from that, or realising that actually they can make sense of something all on their own' (IIA/p.35)

One can see then that in relation to the teaching of reading, teachers utilised several contexts including lessons involving the formal reading scheme, read aloud and independent reading. There was also an emphasis on word level skills such as phonological awareness, phonics and sight vocabulary, all of which were taught in a largely traditional manner.

6.1.2 The teaching of writing

At the start of the year, at the time the first group interview occurred and the questionnaire was administered, three teachers reported that their primary focus in the teaching of writing was on particular skills rather than on the composition of writing. One of the teachers was concentrating on handwriting mainly, and had not yet tried any composing with her pupils:

> Writing wise, now their letter formation and everything wasn't great, so I've been concentrating a good bit on that for the moment to get that up and running. So I can't say I've hit into creative writing or anything like that because I'm so focussed on getting the formation, because I think they need a lot of that. (CLST1A/p.9)

Our News was the focus of writing with another class and took place three times a week – on Monday, mid-week and on Friday. As is the norm in this activity, children told their news to the teacher who wrote it up on the board and the children then copied it down into their copies. The emphasis was on neat handwriting and repeated exposure to sight vocabulary. A third teacher also did Our News and combined it with daily sentence or paragraph writing based on words from the class reader. Her views of the children's ability to write creatively were illustrative of most teachers:

> I do writing based on like Our News, and whatever sight word we'd be doing, like 'it is' or whatever, just putting them into sentences. Or like the cloze procedure, just a paragraph with a few words missing that they have to fill in the right words. But it's all based on the reader, so they can read everything. They wouldn't be able to write anything creative. You know, they can just about write very simple stuff. (CLST1B/p.14-15)

In the fourth class, children who were perceived to be higher achievers were afforded the opportunity to compose short pieces based on writing prompts, which the teacher had devised in relation to a story read or a theme being explored in S.E.S.E.

> The strong group, I've given them prompts before, just relating to the story and they've written, you know, they seem to be quite able to write with guidelines and details and things like that...Well the story was *The Big Red Bike*, and I'd ask them to write about their bike or what they wanted to have. They were able to tell me where they got it, who they go with, where they go, why, when, you know that kind of thing.... you know, we'll do one on Halloween as well. As the writing comes out of the SESE a lot as well, just whatever topic I'm doing, we do a lot of writing on that. (CLST1D/p.16-17)

This teacher had also provided the children with 'writing tools' which helped them in the act of composing e.g. personal word lists and lists of sight vocabulary and when assessing their writing she noted whether or not they had used their tools.

While a process approach to the teaching of writing is recommended in the curriculum, evaluations have shown that schools are having difficulty adapting to this approach and are in need of further support to do so. These reports have indicated that a process approach was in evidence in less than half of the schools in the studies (DES, 2005b, 2002), that mechanical skills were taught in isolation rather

than being woven into the writing context, and that a greater focus on the emotional and imaginative side of the child was needed.

6.1.3 Time for literacy

There was a difference in the time allocated to literacy reported by teachers in the questionnaire compared with what they said in the group interview. Teachers' responses to the questionnaire item are summarised in Table 6.1. The figures range from just over six and a half hours to almost 11 hours. In interviews it was clear that the times given in the questionnaire were more a reflection of time spent on reading, writing and oral language across the curriculum and were not dedicated times for English literacy per se. In general teachers spent about an hour a day on literacy, which is just over the recommended weekly time (four hours) for English in the curriculum guidelines (DES, 1999).

Table 6.1 Weekly time allocated to literacy by each classroom teacher as indicated by Qst.5/6 on the questionnaire

Teacher	Total: (Oral language, reading, writing)	Reading	Writing
A	10 hours	5 hours	5 hours
B	8 hours 30 minutes	5 hours	3 hours 30 minutes
C	10 hours 50 minutes	3 hours 40 minutes	3 hours
D	6 hours 40 minutes	1 hour 40 minutes	1 hour 40 minutes

Teachers were used to working in small chunks of time and broke literacy instruction up, covering different aspects at various times throughout the day. Only one of the four teachers reported that she had a daily 90-minute block for literacy which she too had divided up into chunks (word work, reading, writing), partly out of necessity due to the interruptions of children coming and going to support classes and the times set aside for lunch breaks.

6.2 School Level Factors in Relation to Literacy

6.2.1 Provision for learning support

Children were allocated extra support in reading in First class based on the results of the Middle Infant Screening Test (discussed in chapter seven) which was administered toward the end of Senior Infants. Children who scored poorly on that test were re-tested by the SET team on a number of skills in September of First class and then allocated support based on priority and space available. A small number of children had had educational assessments and had been allocated resource hours outside the classroom and two of these had been allocated a special needs assistant within the classroom. A withdrawal model was in place with the learning support and resource hours always delivered outside of the regular classroom. In addition, 4 children were assigned to the official Reading Recovery programme and as the Reading Recovery teacher was also the SET teacher for Traveller children, two more children were also given Reading Recovery but this usually occurred in pairs rather than individually. Thus, due to the diverse needs of the children and the fact that there were a number of different kinds of support available, a child could be allocated to one of four programmes (learning support, Reading Recovery, resource teaching, resource teaching for Traveller children); so often times a classroom teacher would have to liaise with four different teachers. One teacher expressed the view that she quite liked the interaction with four different teachers for support and she viewed it as an opportunity for herself to learn: 'And it's interesting having the kids going to say three or four different Learning Support because you get loads of hints from all the different things you see them coming back with' (IIA/ p.20).

Teachers were also asked if they felt the withdrawal model affected children's self esteem. All teachers felt that it did not negatively affect children and that in fact they enjoyed the extra attention. As one teacher put it:

> Like I know in some schools, in like a middle class area, if they saw one person leaving, but when they see eight leaving together, it kind of takes away the whole 'I'm the only one'....no it doesn't do their self-esteem any harm at all...I think they like going off and they're all happy going off with their books and everything. And they always get books in their own folder, so they're made a bit of fuss of as well. (IIB/p.50)

All teachers reported that children attending support teaching also received reading instruction within the classroom either on return or at a later time of the day. Teachers were very conscious of ensuring that these children got reading 'on the double' and indeed in classes where there was a special needs assistant (S.N.A.), they got a 'triple dose' (Knapp, 1995) as the S.N.A. often listened to them reading, either before or after they worked with the teacher.

6.2.2 Collaboration

On the questionnaire, teachers were asked to rate their level of collaboration with teachers within the same class level, with teachers of other class levels and with the SET team, on a five-point scale (with 5 signalling a high level). There was variation between teachers' written responses to these items and those communicated in interview. Within their own class level, one teacher reported a level five and the other three rated it a two or a three, indicating relatively low levels of collaboration. Rates for levels of co-operation across class levels were, not surprisingly, lower, ranging from one to four. While monthly planning meetings were to be accommodated for 45-minute periods, these often did not occur or got cancelled for various reasons. This lack of a predictable and consistent time to plan meant that, when planning time was actually available, it was not used as well as it could have been as meetings were held too far apart for any follow-through and teachers often discussed other subjects as well as literacy:

> It's catch-up.... So you wouldn't get an awful lot done. But that forty-five minutes is supposed to cover every subject that everybody is supposed to be doing. And it's ridiculous. And then sometimes it just works as information.... But we do talk about it really up in the corridor in the mornings when the kids are settling in, that kind of thing, is when we mostly, it's just kind of really rushed as well, or in the afternoon after school (IIA/p 23).

It was clear that teachers valued the idea of collaboration and would welcome more regular opportunities to plan collectively, share ideas and resources and address common instructional issues. They felt it would reduce the isolation and loneliness involved in teaching. They also felt that it would be helpful to know that others were also experiencing similar challenges and to consider how they had dealt with them:

> It'd be great to share ideas because you know the way you're working there, you'd love to hear other ideas that worked and expand your knowledge about it (IIB/p.43).

> No that would be good. Or even just when we're together, just talking about the different things we notice....I find when we're in a group, it's handy to know what's going on with other classes and then I think, 'Oh that's happening in my class too' (IID/p.6)

It was also apparent that teachers communicated informally before, during and after school, particularly teachers who worked next door to each other: 'I'd work quite closely with XXXX next door. So, that works very well. She discovers something and passes it in and I'd pass it over too....'(IIA/p.23). Interestingly, when asked to determine priorities for change, one of the areas mentioned (by one teacher) was more planning time and time for reflection (QST. Qst.30)

When asked about the level of collaboration with support teachers, classroom teachers again gave conflicting responses in interview to those given on the questionnaire. On a five-point scale (with five signalling a high level of collaboration) three of the four teachers rated their collaboration at a four and one rated it as a two (Qst.27). However, in interviews it became clear that there were in fact very few opportunities for classroom teachers to communicate with support teachers for a variety of reasons. One was the fact that there was no regularly scheduled time in the school timetable for class and support teachers to meet to discuss the child's needs, plan instructional approaches collaboratively or keep each other informed of their current instructional focus, approaches being taken and individual progress. Oftentimes, teachers would have brief conversations on the run in corridors or when children were being picked up or dropped off from learning support. The following comments are illustrative:

> Em, a certain amount. I'd have the gist of what they're doing and I definitely see a marked improvement....But they, I wouldn't know exactly, they would tell us all right, they'd say, 'We're working on this, this and this' or 'We're working on the first ten words of the Dolch' but again it's just time, trying to ...(IIA/p.20/21)

> Very rarely. We sort of have more chats at the door and see how we're getting on, you know we don't, very often, like at the start of the year we

> did, we did have a meeting early September, just to see the programme that they would be going through (IIC/p.29)

This is not surprising given the short school day and the heavily loaded curriculum in Irish primary schools. There is no available time in schools for teachers to have regular meaningful conversations, though some teachers in this school went to great lengths to brief each other staying back after school hours and using lunch breaks to discuss issues. All of the classroom teachers felt that more contact with the SET team would be helpful.

6.2.3 Collegiality

In the school in this study, there was a real sense from the outset that despite the challenging working conditions, teachers got on very well together and were very supportive of each other. There were many instances of this. Firstly, the junior and senior infant staff were willing to give up some of their own planning time to facilitate the monthly meeting for the first and second class teachers. In addition, the teachers involved in the study offered to meet after school in order to facilitate the planning and implementation of the change process. They were willing to give up their own free time and were conscious of not over-burdening colleagues for release time (field notes CLST1). Secondly, they could debate issues in a good-natured way:

> 'Today there was a debate around how best to achieve a baseline sample of writing that would be fair and truly representative of the children's writing level. Evidence of good working relationships between teachers: they are not afraid to speak their minds; they can debate without getting upset with each other and they affirm one another. They tease through all of the dimensions and have the ability to reach a consensus that everyone can live with' (CLST1).

Thirdly, teachers often complimented each other (e.g. the work that the SET team were doing with children was affirmed) and during interviews and group discussions acknowledged good practice they had noticed and indicated when and how they had learned from each other. It was obvious that they respected each other and did their best to support one other. Finally, there was a mentoring system in place, where

teachers new to the school and newly qualified teachers were inducted onto staff by older and more experienced colleagues.

It was clear from the teachers that they were very committed to teaching in the school and several of them had been there for many years. It was also communicated in interview that they had tried various approaches over the years in efforts to address the low achievement of the children but had had limited success. They felt strongly that they needed instructional support and guidance on how best to address the range of difficulties that children presented with, as evidenced by the following comment delivered passionately after a teacher had returned from a conference:

> It was uplifting to be surrounded by people who were interested in getting children to read...there was an attitude of can do and will do which we have as *individual* members of staff but I think as a group sometimes....that's where we are falling down. It's not lack of commitment, I feel that terribly strongly. Our children are in desperate need of literacy, the more we test them the more we realise... And then you see everyone is running around, charging around doing this thing for that child, running across the yard with an umbrella with another child, we are not reaping the benefits (CLST2LSC/p.1)

This comment captures the energy and commitment of the staff but also their feelings of frustration at not being able to collectively address the issues. The development of in-school capacity and instructional leadership in literacy was thus a major priority for the change process

6.2.4 Teacher perceptions of factors impacting on achievement

Question 16 on the questionnaire asked teachers to consider what factors were impinging on children's literacy achievement and to rate them accordingly (large effect, moderate effect or little/no effect). Space was provided for teachers to add their own ideas if they were not already addressed on the list. Three of the teachers were in agreement that children's oral language skills had a major effect. This was reiterated at the first group interview where teachers mentioned that children in disadvantaged areas start school very early (typically at four years of age) and

vocabulary taught in school was not necessarily within children's speaking vocabulary or used again at home:

> They're very young and they're not getting any backup at home. You know the words they're hearing at school during the day, are not being consolidated again, they're not reading it, like you know, a bedtime story or that gap is still hugely there in their lives. (CLST1LSD/p.38)

Teachers were also in agreement that another impediment was the lack of parental involvement. This was cited as having a large effect by three teachers and a moderate effect by one. There was wide variability in the level of parental support with some parents working consistently on homework and others not getting involved at all. Another teacher remarked that some children were chaotic and disorganised, did not bring books back from home and often did not complete homework. Another teacher commented on the fact that children in general had trouble persisting at tasks and really wanted to be 'spoon-fed':

> And they just, they really just want to be spoon-fed, some of them, they just want to be told what to do. Because maybe that's a reflection of what happens in the home. They're told 'Do this, do that'. But they're finding it hard to be independent. (CLST1LSB/p.48)

In addition, in a small number of cases, teachers indicated parents' own level of literacy was also a barrier to involvement in homework. Teachers felt that there was a lot the school could do to reach out to parents. Three teachers suggested that more meetings focusing on showing parents how to support their child at home would be of benefit e.g. how to do a picture walk, the kinds of questions to ask while reading and how to interact during reading, and to share teacher expertise with parents. Others suggested the value of encouraging parents to read bedtime stories to the children. Teachers recognised the need to reach out more to parents, particularly the ones who did not engage with the school. One teacher had invited the parents into the school in small groups or individually according to their children's ability and had shown parents how to work with the child on homework.

Poor attendance was another factor cited as having a large negative effect on teaching by three teachers and little or no effect by the fourth teacher. Poor

attendance and lack of parental involvement have been reported elsewhere as impacting on literacy (DES, 2005, Eivers et al., 2004) and are the focus of current government initiatives in disadvantage such as the DEIS strategy (DES, 2005) and the establishment of the National Education Welfare Board which tracks school attendance. On examination of attendance records for the school, it emerged that some of the children in the study had several years of poor attendance which must certainly have contributed to low literacy skills, as well as being symptomatic of other problems.

Poor discipline was rated as having a large negative effect on instruction by two of the teachers and as having a moderate negative effect in the other two classes. In one of the classes where discipline was a problem there was a very high concentration of children with special needs, poor attendance, and very troubled home backgrounds. This teacher reported often that time was wasted in settling the class and getting them to work co-operatively both with her and independently in small groups. There was constant interrupting, calling out of turn and squabbling over tasks. Despite issues related to discipline, there was a positive approach to discipline in most classrooms with teachers rarely raising their voices or descending into negative exchanges with challenging children. Constructive classroom environments were cultivated and it was clear that children felt comfortable in asking questions and interacting with teachers and peers in the classroom: 'A lovely warm atmosphere in this room. XXXX is so tuned into the kids and their particular circumstances and needs. She gives to each one what they need. Is never harsh or sharp with a student' (field notes: November First class).

Three teachers felt that lack of classroom resources had a moderate negative effect on the quality of teaching. It emerged (QST. Qst.19) that there were very few resources in the classroom geared toward interactive teaching: e.g. overhead projectors, sets of individual magnetic whiteboards and letters. Large magnetic whiteboards were however on order for each classroom. Classroom libraries were poorly stocked with a range of between 40 and 60 books per room. Three classrooms had computers and two of these also had literacy software and there was a reasonably up to date computer room in the school to which each class had access each week.

Two other factors were cited in response to the questionnaire, as impacting negatively on instruction. One was the huge diversity in ability found in each classroom which teachers were finding difficult to cater for. The second was the pressure of having such limited time for literacy.

In relation to teachers' perceptions of children's motivation and engagement in reading, various perspectives emerged in the interviews. Some children seemed to love to read and were anxious to take books home and others did not seem to take an interest at all. Teachers reported that the books the children requested for home were very often the ones that had been read aloud in class and children were thus familiar with them:

> Well even though they know that those ones you know they can read with their parents or that they're not expected to read those, but it's still that thing about some kids practice and read books, other kids, some of them, it's like you get the same group of kids really interested in taking home, some won't ...(IIA/p.17)

In one class a child attending learning support had consistently asked for books to take home even though she could not read them. She was receiving help from an older sibling and her parents. Factors contributing to some children's lack of interest in books may relate to low levels of parental involvement, the fact that most of the books available in the classroom and all in the school library were above children's reading levels and the children's own perceptions of themselves as readers. In addition, many children had not yet broken the code and were at the very early stages of reading and as such had not yet discovered the joy of reading independently. Children's performance on early literacy skills in relation to reading and writing are presented in the next chapter and serve as useful baseline data against which to measure future progress in literacy.

7 CHILDREN'S ACHIEVEMENT PRIOR TO THE STUDY

This chapter is divided into four sections. It presents analysis of children's achievement on a range of literacy measures prior to the start of the study, in line with the research on professional development presented in chapter two which recommends focussing on student achievement as a starting point for professional development. First, the results of the Middle Infant Screening Test (MIST, Hannavy, 1993), administered towards the end of the previous school year, are presented. Subsequently, writing samples were obtained for each child in October of First class in order to establish baseline data in writing prior to the introduction of the writing workshop. These were assessed using the Criterion Scale (Wilson, 2002) and are presented in section two. The third and fourth sections present the analysis of the Drumcondra Sentence Reading Test (DSRT, 2002) and Marie Clay Observation Survey of Early Literacy Achievement (OS, 2002), which were administered in January of First class prior to the introduction of changes to the reading programme.

7.1 Performance on the Middle Infant Screening Test (Senior Infants)

The Middle Infant Screening Test (MIST, Hannavy, 1993) was used annually in the school to screen children for difficulties in early literacy skills towards the end of the senior infant year. As outlined in chapter five, the MIST has six sub-tests: listening skills (2 sub-tests), letter sounds, written vocabulary, three-phoneme words and sentence dictation. In addition, the number of letter reversals a child makes throughout the tests can be documented. As can be seen from Table 7.1, of the 56 pupils tested, the mean score of the group was marginally above the cut-off point for two of the sub-tests - listening skills and letter sounds - and below the cut-off point for the other three, indicating difficulties with some of the important pre-requisite skills for literacy. In the case of the sentence dictation sub-test, the mean score was substantially below the cut-off point of 18 but the scores on this test were widely dispersed as indicated by the large standard deviation.

Table 7.1 Performance on the MIST Screening Test (Senior Infants)

All Pupils	N	Mean	St. Dev
Sub-test			
MIST Listening Skills (cut-off: 10)	56	10.5	2.91
MIST Letter Sounds (cut-off: 20)	56	20.5	5.05
MIST Written Vocabulary (cut-off: 6)	56	4.9	4.58
MIST Three Phoneme Words (cut-off: 15)	56	13.1	8.35
MIST Sentence Dictation (cut-off: 18)	56	9.9	10.22
MIST Reversals	49	3.0	3.79

Prior to the beginning of the current study, the school had responded to the low levels of performance on the MIST in the following ways. In general, children with at least three sub-tests scores below the cut-off were offered some form of support by the school. Children with documented learning difficulties (three in total and one awaiting assessment) were given resource teaching hours with one of the members of the school SET team. Four children were offered a place on the Reading Recovery programme. The Reading Recovery teacher was also the resource teacher for Traveller Children and as she used the Reading Recovery programme with two of these children. This brought the number of children in the Reading Recovery programme in First class to a total of six. A further 16 children in First class were offered learning support. Children's performance on the MIST is discussed in the following sections according to the level of support they were offered at the start of First class based on these scores which are from the end of the previous year.

7.1.1 Children receiving resource hours

Of the four children allocated resource teaching, one had been diagnosed with attention deficit disorder and was prescribed medication daily and a special needs assistant had been assigned. A second child had documented behaviour difficulties and was also assigned a special needs assistant. The third child had a language disorder which had been diagnosed prior to the commencement of school in junior infants. The fourth child was awaiting an assessment and presented with attentional difficulties in the classroom. As can be seen from the mean achievement scores, all of the children in this group had significant difficulties with the sub-skills of reading, in particular with written vocabulary, dictation and three-phoneme words. Not

surprisingly, this group also had the lowest mean listening scores. In relation to the letter sounds there was huge variation amongst the children with a maximum score of 23 for one child and a low of four for another. There was also a large variation in performance on the three-phoneme words, sentence dictation and written vocabulary tests. In relation to the numbers of reversals, one child had double the mean score. Each of the children in this group performed below the cut-off point on at least 4 sub-tests.

Table 7.2 Performance on the MIST (Senior Infants): Children in receipt of Resource Teaching, Reading Recovery, and Learning Support

Groups of children	N	Mean	Std. Dev.
Resource			
MIST Listening Skills (cut-off: 10)	4	8.3	2.63
MIST Letter Sounds (cut-off: 20)	4	16.3	8.42
MIST Written Vocabulary (cut-off: 6)	4	0.5	0.58
MIST Three Phoneme Words (cut-off: 15)	4	9.3	9.30
MIST Sentence Dictation (cut-off: 18)	4	1.3	2.50
MIST Reversals	3	4.0	4.00
Reading Recovery			
MIST Listening Skills (cut-off: 10)	6	9.0	1.79
MIST Letter Sounds (cut-off: 20)	6	18.3	2.66
MIST Written Vocabulary (cut-off: 6)	6	1.2	0.75
MIST Three Phoneme Words (cut-off: 15)	6	4.3	2.73
MIST Sentence Dictation (cut-off: 18)	6	5.5	4.89
MIST Reversals	5	4.2	4.21
Learning Support			
MIST Listening Skills (cut-off: 10)	15	8.6	2.85
MIST Letter Sounds (cut-off: 20)	15	16.6	4.78
MIST Written Vocabulary (cut-off: 6)	15	3.5	3.02
MIST Three Phoneme Words (cut-off: 15)	15	6.9	4.89
MIST Sentence Dictation (cut-off: 18)	15	3.9	4.82
MIST Reversals	12	4.8	5.93

7.1.2 Reading Recovery children

The mean scores of the second group, the children assigned to the Reading Recovery programme (Table 7.2), also indicate performance below the cut-off point on all sub-tests. In general, the Reading Recovery children achieved marginally better on the sub-tests than the resource children, with the exception of the three-phoneme test,

where they performed well below the resource children. There was also less variation in scores within the sub-tests except on the dictation test where the lowest score was zero and the highest 11. One child had eleven letter reversals, almost three times the mean for this sub-test. Three of the children performed below the cut-off point on all sub-tests.

7.1.3 Children receiving learning support

The mean scores of the third group (Table 7.2), the children allocated learning support (16, but one absent), also show performance below the cut-off point on all sub-tests. Of these 15 children, six performed below the cut-off point on all sub-tests, three performed below the cut-off point on four of the subtests and five performed below the cut-off point on three of the sub-tests. Just over a third of the children performed below the mean on the listening skills test and half of them scored below the mean on letter sounds. The highest score on the written vocabulary, achieved by one child, was 10 and two children received a score of zero. In relation to three-phoneme words, one child achieved the highest score of 17 and seven performed below the mean. Nine children performed below the mean on the sentence dictation and there was one high score of 17. One child had more than four times the mean score on letter reversals.

7.1.4 Children not receiving extra support

When one totals the number of children in receipt of support, one gets 26 children or just under half of all children in First class. In fact, a further eight children performed below the cut-off point on at least three sub-tests but were not offered additional support. Learning support was offered in consultation with classroom teachers and those deemed most in need were given priority. On average the eight children performed above the cut-off point on listening skills and letter knowledge and their mean scores on the other three sub-tests (3.5, 12.9 and 7.4 respectively), were somewhat higher than the children who were offered learning support. The MIST scores of the children not in receipt of learning support are detailed in Table 7.3. While on average these children were above the cut-off point on three of the sub-

tests, they showed difficulties on the written vocabulary and sentence dictation sub-tests. They presented with fewer letter reversals than any of the groups in receipt of support.

Table 7.3 Performance on the MIST Screening Test (Senior Infants) - Children not receiving any support.

Groups of children	N	Mean	Std. Dev.
No Support			
MIST Listening Skills (cut-off: 10)	29	11.9	2.36
MIST Letter Sounds (cut-off: 20)	29	23.8	2.44
MIST Written Vocabulary (cut-off: 6)	29	6.9	5.05
MIST Three Phoneme Words (cut-off: 15)	29	18.3	6.81
MIST Sentence Dictation (cut-off: 18)	29	15.8	10.69
MIST Reversals	27	1.9	2.09

7.1.5 Discussion of the findings on the MIST

In synthesising these results, it is clear that many of the children at the start of First class were experiencing difficulties across the range of early reading skills. Of particular concern was the fact that a minority of children achieved a full score of 26 on initial letter sounds and less than a quarter (23%) were able to write more than six words on the writing vocabulary test. Just over a quarter (15) children performed above the cut-off on the sentence dictation test. The performance on the blending and segmentation of three-phoneme words was somewhat better with two-fifths of the children (41%) performing above the cut-off point. Both SET and class teachers felt that the use of the MIST as a screening instrument was helpful in allocating support to the children most in need.

7.2 Writing Performance on the Baseline Writing Sample

One of the issues discussed during the first semi-structured interview with the classroom teachers and the SET team in the school in October of First class, was the children's achievement on the MIST, as outlined above. Given the children's weaknesses in the various sub-skills, it was decided in collaboration with the

teachers, that the first element of change to be introduced in the school would be in the area of the teaching of writing. Huxford (2006) argues that early phonics is really spelling in the early stages of development and presents a review of the literature to support this argument. Researchers (Liberman et al., 1971) have shown that phonemic segmentation (required for spelling) is necessary for the development of phonic blending (required for reading) and Frith's model of literacy development (1985) suggests that it is in fact a precursor to spelling development. The provision of opportunities for children to write independently from the earliest stages has a long history (Montessori, 1912/1964; Chomsky 1979; Clarke cited in Adams 1990) and is seen as critical in helping children to acquire the essential skills of segmentation and blending. The teachers agreed to begin implementing a writing workshop in November of First class. In order to ascertain a baseline level of the children's independent writing skills, all children were asked to write for 20 minutes on the chosen topic 'Myself'. The researcher visited the classrooms and administered the test. All charts and word lists within the classroom were covered so children could only rely on their own knowledge. Children were encouraged to write freely on the topic and were asked not to use erasers when they made mistakes, but rather to cross out errors. The researcher circulated as the children wrote, asking questions to prompt thinking. Many of the children were daunted by the task and continually asked 'how do you spell?' The researcher responded: 'spell as best you can' and gave no further assistance on spelling.

Following the writing task, all samples of writing were scored on The Criterion Scale (Wilson, 2002), which had been transformed into a numerical scale (as outlined in chapter five). The scale is shown in Table 7.4. The results of the baseline-writing task are presented in Table 7.5.

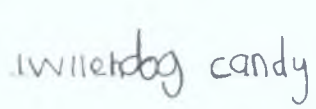
Table 7.4 Criterion Scale converted to numerical scale score

Level/Number of Criteria	Criterion	Sub-levels	Numeric scale score
W1 (working toward level one)/(26)	1-10		1
	11-19		2
	20-26		3
Level 1/(9)	5 + no. 9	1C	4
	6/7 + no. 9	1B	5
	8/9 + no. 9	1A	6
Level 2/(22)	8-12	2C	7
	13-17	2B	8
	18-22	2A	9
Level 3/(17)	7-10	3C	10
	11-15	3B	11
	16-17	3A	12
Level 4/(17)	6-8	4C	13
	9-12	4B	14
	13-17	4A	15
Level 5/(22)	9-12	5C	16
	13-17	5B	17
	18-22	5A	18

As can be seen from Table 7.5, the minimum score achieved was 2.00 in all classes and the maximum score achieved was 7.00 by at least one child in classes B and D. With the exception of class B the majority of children were performing below level one. The mean score for class B places it at the lower end of level one. This low level of performance is not surprising given the children's performance on the subtests of the MIST, many of which assess skills that are also important for writing. Examples of the standard of writing for each of these levels are presented in Figures 7.1-7.4 below with examples of some of the descriptors for each level

Table 7.5 Baseline performance on writing in October First class by class

Group	Baseline Writing	N	Min.	Max.	Mean	Std. Dev.
Class A	October First class	12	2.00	5.00	2.7	0.89
Class B	October First class	12	2.00	7.00	4.0	1.71
Class C	October First class	15	2.00	6.00	3.6	1.35
Class D	October First class	14	2.00	7.00	3.5	1.74



Figures 7.1 Baseline Sample Child A

W1 (17/26) Numerical score 2
Knows that print is read from left to right
Can form letters correctly
Can write single letters or groups of letters to represent meaning
Writes simple regular words (and, dog)

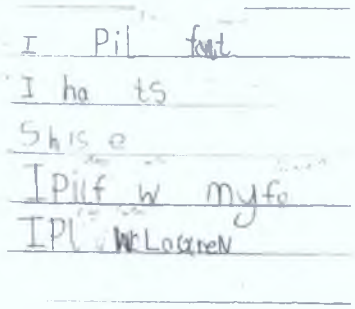


Figure 7.2 Baseline Sample Child B

W1 (21/26); Numerical score 3
Knows that print is read from left to right
Knows there are spaces between words
Can write single letters or groups of letter to represent meaning
Writes simple words (my, is, Lauren)
Is beginning to make phonic attempts at words (pil-play, fut-football)
Can say what writing says and means

Figure 7.3 Baseline Sample Child C

Level 1B; Numerical Score 5
Can spell some common monosyllabic words correctly (two, dog, with, and)
Can use simple words and phrases to communicate meaning
Work is decodable without help from the child
Uses a connective (level 2C)

Figure 7.4 Baseline Sample Child D

Level 2C; Numerical score 7
Writes with meaning in series of simple sentences
Can produce short sections of developed ideas
Can use simple phonic strategies when trying to spell unknown words (playstaishen)
Majority of words are spelled correctly
Can use a connective (and)

7.2.1 Statistical significance of differences in writing between classes

An Analysis of Variance (ANOVA) was used to determine if there was a statistically significant difference in achievement between the four classes at the start of the study. This established that there were no significant difference in writing achievement (F (3, 49) = 1.755; p. = 0.168) (see Table 7.6). Since the overall F was not statistically significant, no post-hoc tests of differences between specific classes were conducted.

Table 7.6 Baseline writing samples October First class ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.365	3	3.788	1.755	.168
Within Groups	105.767	49	2.159		
Total	117.132	52			

7.3 Performance on the Drumcondra Sentence Reading Test

In January of First class, in preparation for the next phase of the change process which would involve professional development for the teachers in relation to the teaching of reading, a standardised test of reading achievement was administered to establish baseline data on children's reading achievement. Form 1A of the DSRT (ERC, 2002) was given mid-January (see chapter five for a description of the test).

7.3.1 Mean scores and standard deviations on the DSRT

First, the average scores for pupils in each First class, and for all pupils in First class were obtained. These are reported in Table 7.7. The minimum standard score was 60, while the maximum was 108 (obtained by one pupil in Class D). Class mean scores ranged from 76.5 (Class A) to 85.6 (Class B). The overall mean score across all four First classes was 81.3. The class-level standard deviations ranged

from 10.39. (Class A) to 12.85 (Class C), indicating broadly equivalent levels of variation within classes.[2]

These mean scores can be interpreted with reference to percentile ranks. A standard score of 76.5 (mean for Class A) converts to a percentile rank of six, indicating very low average achievement among pupils in Class A. The corresponding percentile ranks for Classes B, C and D were 17th, 9th and 13th respectively. When the overall mean (81.3) is converted, we get a percentile rank of 10. These percentiles confirm the low achievement of pupils across the four sampled classes.

Table 7.7 Mean, maximum and minimum standard scores and standard deviations on the DSRT, January First class, by class

Group	N	Min.	Max.	Mean	Std. Dev.
Class A	14	62	101	76.5	10.39
Class B	13	60	105	85.6	10.44
Class C	15	66	103	80.8	12.85
Class D	14	69	108	82.8	10.56
All Classes	56	60	108	81.3	11.34

We can also look at the distribution of individual pupil scores converted to percentile ranks (Figure 7.5). The figure shows that one-half of pupils achieved at or below the 10th percentile. This is greater than the average proportion for pupils in First class (30%) reported in the Study of Reading Literacy in Disadvantaged Schools (Eivers et al. 2004), indicating serious levels of underachievement. When one combines the number of children performing at or below the 10th percentile with those between the 11th and 20th percentile, almost 68% of children in these four classes were performing in the bottom quintile of achievement. In the LANDS study, conducted by the DES in 2005, the percentage of children in the participating schools reported to be performing at or below the 20th percentile ranged from a low of 24% to a high of 60%. This again largely mirrors the results of the four classes in the study - if we assume the norms for the standardised tests used in LANDS are equivalent to those for the Drumcondra Sentence Reading Test. Weir (2003), in an evaluation of the

[2] When the mean scores of Classes 1 and 2 were compared using a t-test, the difference was found to be statistically significant ($t(25) = -2.272$, $p. < .05$). However, the overall ANOVA, which looked for differences across the four classes, was not statistically significant

Breaking the Cycle initiative, found that approximately 38% of pupils in 6th class who were part of the scheme from its initiation in 1996, were performing below the 10th percentile. Weir hypothesised that the true figures were closer to 50 % as almost 8% of children had been excluded from taking the test on the basis that they would not have been able to attempt it. The study school was a Breaking the Cycle school, one of the 33 urban schools granted this status in 1996/7 when this scheme was first initiated. None of the children participating in this study were excluded from taking the test and all children were present on the day of testing. The numbers performing below the 10th percentile are therefore in line with Weir's findings.

Figure 7.5 also shows that a small percentage of children (3.5%) were performing between the 61st and 70th percentile and none performing above that level. In the LANDS study the percentage of children performing between the 81st and 100th percentile ranged from 2.1% to 11.5% and in the Study of Reading Literacy in Disadvantaged Schools (Eivers et al., 2004), approximately 4% of children in First class in disadvantaged schools were performing above the 90th percentile, compared with about 10% nationally. This again confirms the serious levels of underachievement apparent in classes involved in the study and is in line with research findings that have shown that the more economically disadvantaged a school is, the more seriously depressed the achievement scores of the children will be on a standardised test of reading achievement (Puma et al., 1997; Cosgrove et al., 2000; Eivers et al. 2004).

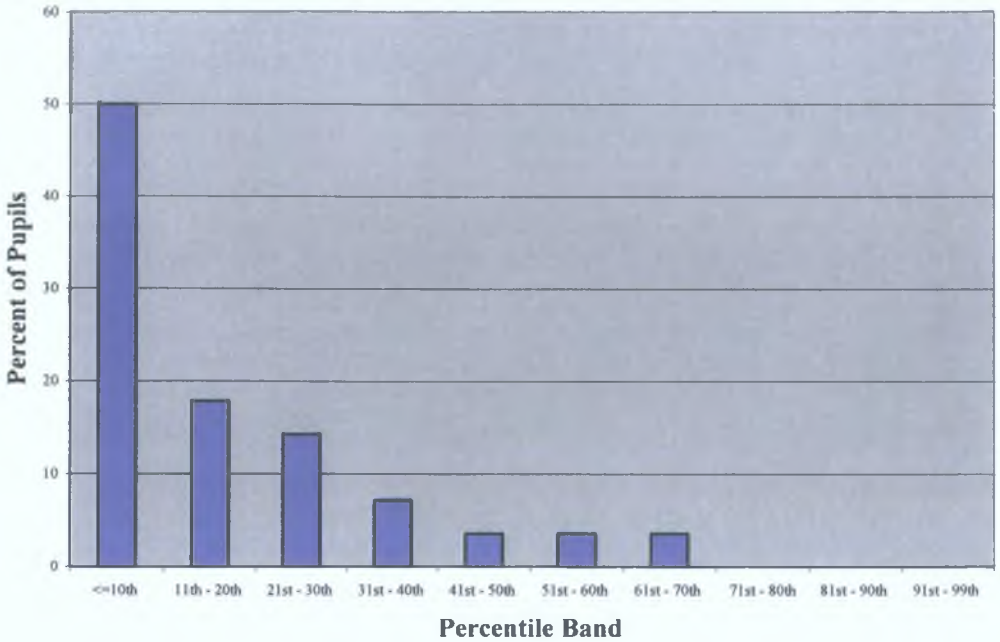


Figure 7.5 Percentages of students achieving with scores in various percentile bands on the Drumcondra Sentence Reading Test (January, First class)

7.3.2 Statistical significance of differences in reading between classes

As with writing, it was decided to ascertain if there were differences in reading achievement between the four First classes at the beginning of the study. Using the reading achievement data from the DSRT, (Level 1, Form A), an Analysis of Variance (ANOVA) established that there were no overall significant differences between the class-level standard scores at the beginning of the study ($F(3,52) = 1.605$; $p. = 0.199$) (see Table 7.8).

Table 7.8 ANOVA for differences between First classes on DSRT Standard Scores, January First class

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	599.220	3	199.740	1.605	.199
Within Groups	6471.334	52	124.449		
Total	7070.554	55			

7.4 Performance on the Observation Survey of Early Literacy Achievement

Professional development was provided to teachers on the administration of the OS (Clay, 2002). The Reading Recovery teacher provided the training on administration of running records which included opportunities for teachers to practise taking and interpreting them. The OS was chosen on the basis that it would provide teachers with both summative and formative assessment data on each pupil and because it was used by the Reading Recovery teacher and teachers had some familiarity with it. Four of the sub-tests were administered in January of First class: letter knowledge, hearing and recording sounds, written vocabulary test and word reading (sight vocabulary). As teachers used two different word-reading tests (Duncan, total 23 and Marie Clay test, total 15) that were available in the manual, the results were not directly comparable across all children. However they do give an indication that for some children, the acquisition of basic sight vocabulary was still a problem. The word reading test results are presented in Tables 7.9 and 7.10. Of the forty children who took the Clay word test (the majority of whom were not receiving support outside the classroom), there was large variation in number of words read correctly (from 1 to 15) with 40% of children reading below the mean. Turning to the Duncan word test (the majority of the 15 children who took this test were receiving support outside the classroom) the highest score of 23 was achieved by just over a quarter of children while seven pupils were reading below the mean (18.7 points), with the lowest-performing pupil obtaining a score of 12.

Table 7.9 OS Clay Word Reading Test, January, First class

	N	Min.	Max.	Mean	Std. Dev.
Clay Word Test (OS) January First class (max 15)	40	1.00	15.00	10.2	4.02
Valid N (listwise)	40				

Table 7.10 OS Duncan Word Reading Test, January, First class

	N	Min.	Max.	Mean	Std. Dev.
Duncan Word Test (OS) January First class (max 23)	15	12.00	23.00	18.7	3.81
Valid N (listwise)	15				

The results for the other three sub-tests are presented in Table 7.11 and are sub-divided according to the kind of support children were receiving outside the classroom (For an explanation of these sub-tests see chapter five).

Table 7.11 Test results for OS according to level of suppport: January, First class

Group	N	Min.	Max.	Mean	Std. Dev.
All Children					
Letter ID (max 54)	57	31	54	52.0	3.46
Hear and Record Sounds (37)	55	3	37	31.4	7.16
Writing Vocabulary Test (10 minutes timed)	55	4	80	29.7	15.72
Resource					
Letter ID (max 54)	3	49	54	51.7	2.52
Hear and Record Sounds (37)	3	15	37	27.7	11.37
Writing Vocabulary Test (10 minutes timed)	3	7	57	35.0	25.53
Reading Recovery					
Letter ID (max 54)	6	48	54	51.3	2.42
Hear and Record Sounds (37)	6	28	37	33.0	3.41
Writing Vocabulary Test (10 minutes timed)	6	41	80	57.2	17.00
Learning Support					
Letter ID (max 54)	16	31	54	51.3	5.72
Hear and Record Sounds (37)	15	6	37	30.4	8.70
Writing Vocabulary Test (10 minutes timed)	15	4	46	24.3	11.88
No Support					
Letter ID (max 54)	30	47	54	52.4	1.99
Hear and Record Sounds (37)	29	3	37	31.8	6.80
Writing Vocabulary Test (10 minutes timed)	29	9	51	26.9	10.69

As can be seen from Table 7.11, the children performed quite well on the letter identification task. When one compares this with the results of the MIST, outlined earlier, it indicates much improvement on this skill between the end of Senior Infants and January of First class. This test has 54 items, as typecasts of the letters 'a' and 'g' are also included. One child achieved a 31 on this test (this particular child had a major attendance problem having missed more than 50 days in the previous school year and 42 days by the end of first class); six were below 50 and the rest above 50.

On the hearing and recording sounds test, the children attending resource (children with documented learning difficulties) had the lowest mean score and the children attending Reading Recovery had the highest. Approximately 20% of children performed below the group mean and of these children, three performed

well below the mean, achieving scores of 3, 6 and 15 respectively. Interestingly, the child with the lowest score on this test was one of the children in the group with three sub-tests below the cut-off mark on the MIST who had not been offered learning support.

Again on the writing vocabulary test, the Reading Recovery children had the highest mean score (57.2) and the learning support group had the lowest (24.3). Scores ranged from 4 to 80, illustrating the wide range of achievement in the sample. Approximately 48% of children performed below the group mean of 29.7 and a quarter of these obtained a score of 15 or less. It is perhaps not surprising that the children in the Reading Recovery group performed strongly on the OS tests as part of their daily instruction involves practice in these aspects of reading and writing.

The text-reading sub-test was administered in March following a full day of professional development for the teachers on how to take, score and interpret a running record. Teachers matched children to text at their instructional level of reading (between 90-95% accuracy) using leveled texts. This information was subsequently used to form reading groups within the classes and to maintain a dynamic approach to grouping so children were continuously monitored and moved groups as they made progress. Groups were fluid and flexible. The reading levels of the children in March of First class, just before the implementation of the guided reading programme after Easter, are shown in Figure 7.6. The mode is level ten with 11 children obtaining this level representing about 19% of the group and a further 24% of children attaining below a level ten. While almost nine percent (five children) performed above level 20, in reality these children were excellent decoders but had difficulty understanding the content of the reading material.

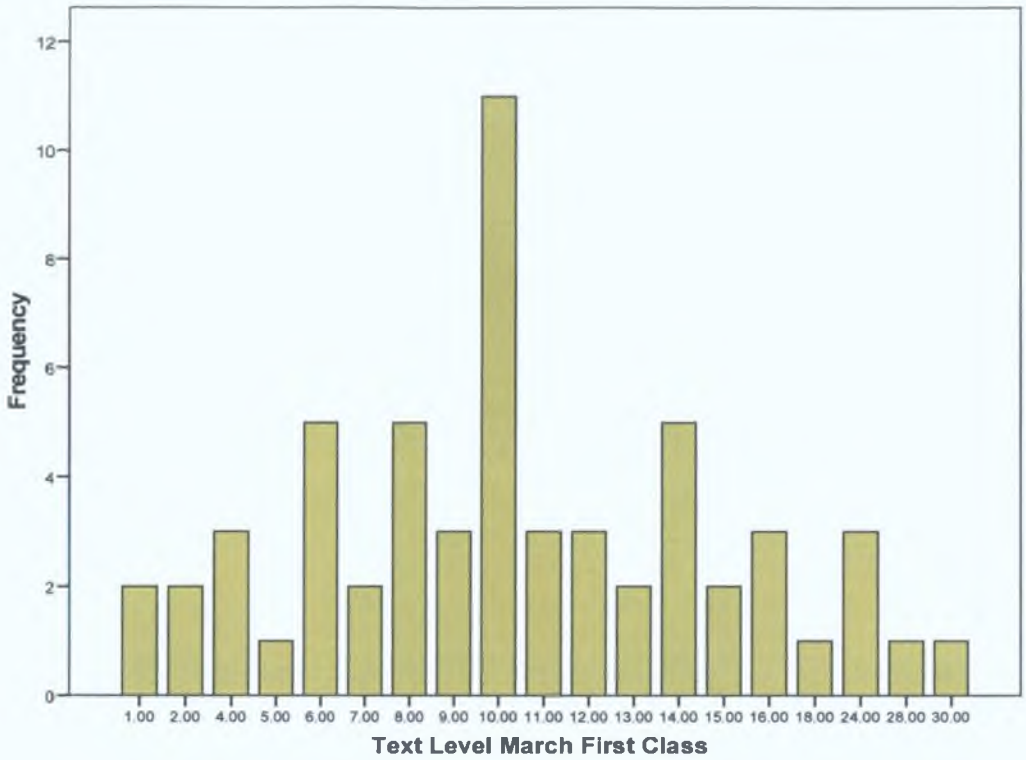


Figure 7.6 Reading Recovery text reading levels, March, First class

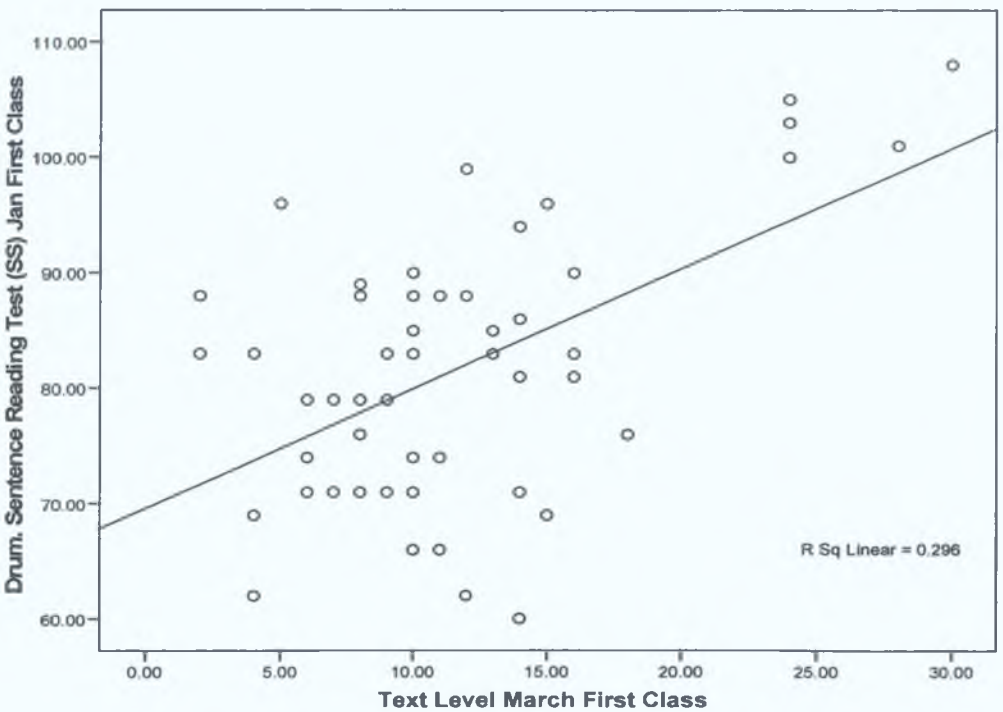


Figure 7.7 Correlation of text level in March, First class, with performance on the DSRT in January, First class

As Figure 7.7 illustrates children reading at low text levels also tended to perform at a low level on the DSRT. For example, most children reading at text levels between

one and five all had standard scores below 70. Children reading at the highest text levels (25-30) had standard scores ranging from 100-105. There was wider variation in performance on the DSRT in relation to the other text levels e.g. one child reading at level 17 had a score in the mid 70s whereas a child reading at level six had a standard score above 90.

7.5 Discussion of the Baseline Testing Data

By January of First class, it was clear that the children in the study had significant difficulties with a range of sub-skills for literacy, including letter-sound correspondence, as evidenced from the hearing and recording sounds in words test; acquisition of basic sight vocabulary, apparent from the sight vocabulary word tests, and written vocabulary and writing of continuous text (writing samples).

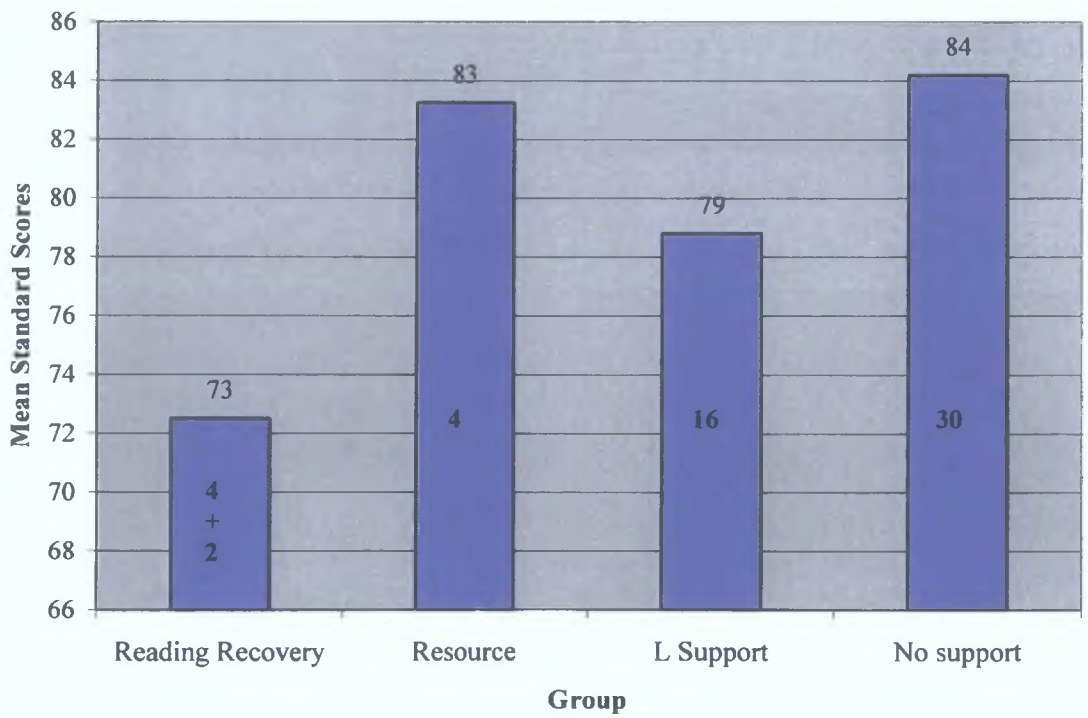


Figure 7.8 Mean standard scores on the DSRT for children receiving Reading Recovery, Resource, Learning Support and No Support, January First Class.

While children in the Reading Recovery group performed strongly on the hearing and recording sounds in words test and the writing vocabulary, this did not translate

into gains on the DSRT where their achievement remained lower than their peers in the classroom and those who were attending learning support. This is interesting, given that by the time of testing the children in the Reading Recovery group would have had approximately 14 weeks of their intensive individualised intervention programme aimed at bringing their achievement up to the level of their peers in the classroom. As can be observed from Figure 7.8, the children in the Reading Recovery group had the lowest mean scores of all children despite the level of support they received. However, it must also be remembered that the Reading Recovery group included two resource children who were not in the official Reading Recovery programme but whose resource teaching included a Reading Recovery programme. These children sometimes received their instruction in pairs. Expressing thoughts in writing was also a concern, as many children in the study had difficulty meeting the minimum pre-requisite criterion for level one on The Criterion Scale which represents the ability to write two to three simple statements, the majority of which are decodable by an adult without the help of the child. There was, however, wide variation in writing achievement, with some children achieving at level 2C. With a clear picture of children's strengths and difficulties and the classroom context, the teachers and researcher turned their attention toward change. This process is outlined in the next chapter.

8 THE CHANGE PROCESS

This chapter documents the sequence of the change process during the study. The changes made were informed by the research outlined in chapters one to four and were always implemented in consultation with participating teachers. The change process, which occurred over a two-year period in five phases, was also informed by analysis of student achievement data which led the researcher and teachers to prioritise changes according to children's needs. A change model based on those of Guskey (1986, 2000, 2005) and Loucks-Horsley et al. (2003) was used (see chapter two). The change process is described with reference to this model (see Figure 8.1)

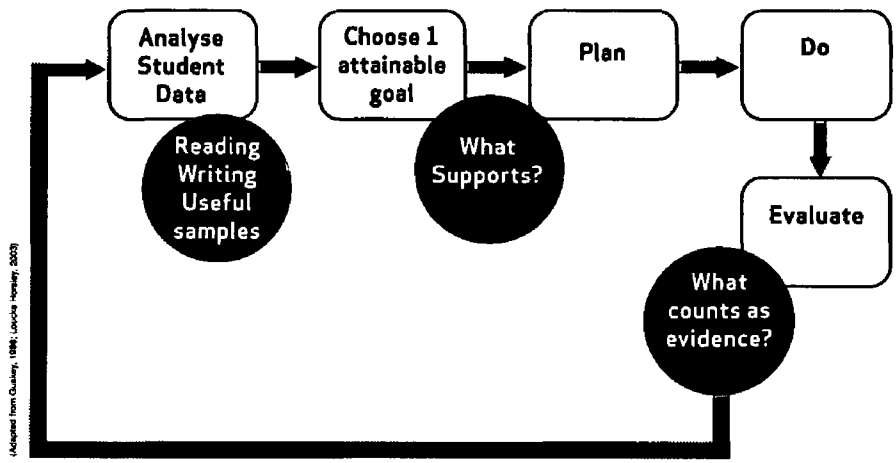


Figure 8.1 Model used in the change process

Supports were put in place to help teachers further develop their specialised pedagogical content knowledge (Shulman, 1987), as well as the research base on literacy necessary to implement a balanced literacy framework (Figure 8.2). These elements were then incorporated into a classroom model that included the practices of exemplary teachers of literacy as outlined in chapter three (Figure 8.3).

Professional development was conducted on-site for the most part, sustained over time and implemented in line with constructivist principles. A multi-faceted approach was taken which included the provision of professional reading material, demonstration lessons illustrating various approaches, provision of resources for

implementation of new methodologies, professional development sessions with substitute cover provided for teachers, and regular planning meetings. There were discussions around the professional readings at each meeting and teachers commented on what they found interesting and challenging about implementation.

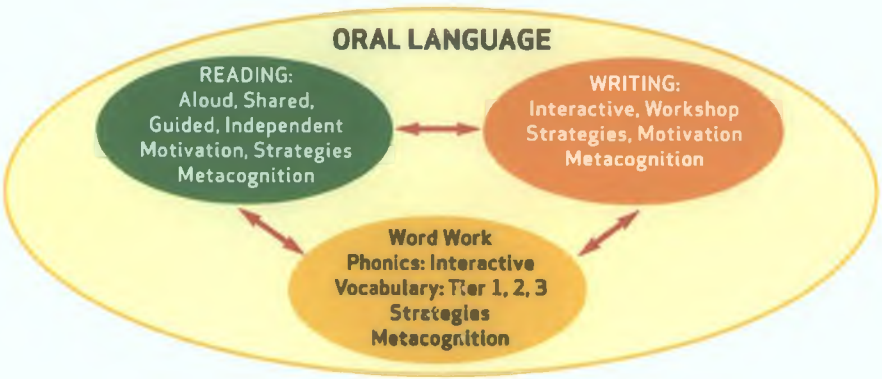


Figure 8.2 Features of the Balanced Literacy Framework implemented during the study

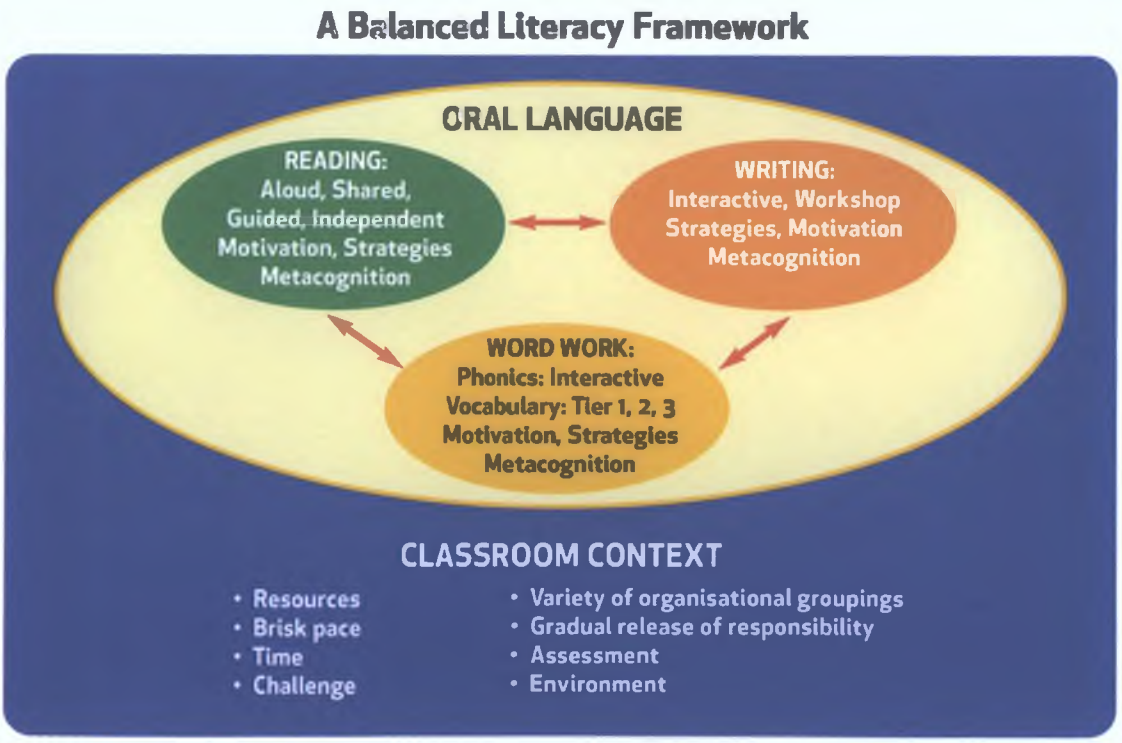


Figure 8.3 A classroom model incorporating a balanced literacy framework and exemplary teaching practices in relation to literacy instruction.

Observations of teaching were also conducted, as they have been shown to substantially increase the effectiveness of professional development and the self-

efficacy of teachers when conducted in non-evaluative ways (Joyce & Showers, 1988; Da Costa, cited in Cordingley et al., 2003). Also, as the researcher visited to demonstrate and observe lessons, there was a lot of contact with teachers outside of the formal meeting times which greatly facilitated the change process. This also helped the researcher establish a collaborative working relationship with the teachers and to get to know the children in each class on an individual basis. The five phases are detailed in the following sections.

8.1 Phase One: October – December of First Class: A Focus on Writing

8.1.1 Analyse data

Children's performance on the MIST (Hannavy, 1993) was analysed and it suggested that children had difficulties with blending and segmenting tasks (see chapter seven). Teachers also felt that children had difficulty with independent writing and analysis of a baseline sample of writing (see chapter seven) indicated that there was a wide range of achievement in the group.

Frith's (1985) model of literacy development suggests that segmentation skills develop prior to blending skills. Research has also advocated the teaching of writing as an important component of an emergent literacy approach and indicates it can have a powerful influence on children's motivation and engagement with literacy (Calkins, 2001; Huxford, 2006). In addition, the writing process is advocated as an approach to writing in the English curriculum 1999 and was not a regular feature of classroom instruction for most teachers in the study.

8.1.2 Set one attainable goal at first

In consultation with teachers it was decided to implement a writing workshop for 30 minutes daily and to move children who were at a semi-phonetic stage (Gentry, 1982) of spelling to a phonetic stage by Christmas. Those who were at functioning at a higher level would be encouraged to articulate their ideas further.

8.1.3 What supports?

Professional development

Reading material

Writing: Donald Graves (1994), Calkins (2003) focusing on how to set a workshop, manage it, the structure of a workshop: mini-lessons, conferencing, share session.

Demonstration

Researcher taught one writing workshop lesson in each classroom on teacher invitation.

Observation

Researcher observed writing workshops and discussed with teachers. Professional development research indicates that the inclusion of observation in a non-supervisory capacity enhances teacher self-esteem and strengthens the impact of the professional development (Cordingley et al., 2003).

8.1.4 Plan and do

After the initial meeting with staff responsible for First class, four more sessions were held with classroom teachers between November and December as they began to implement a writing workshop. At the first meeting, there were discussions on changing the physical layout of classrooms to suit a workshop infrastructure and on the resources needed. Teachers agreed to set up a meeting area with a carpet square (one teacher already had this) and to begin an alphabetized word wall that would be easily visible to children. Visual displays of children's literature with the spine or covers facing out so children would be surrounded by a print-rich environment and would begin to envision themselves as authors, were recommended. The focus of other sessions was on issues related to the development of mini-lessons, conferencing, assessment and how to move students forward in their development.

In addition, five children were selected from each room (on the basis of their writing samples) for interview so the researcher was in the school for several days

between 25th November and 10th December conducting interviews (see Appendix D for questions asked).

Resources

- Magnetic whiteboards, easels, chart paper and markers for mini-lessons and demonstration of writing were made available.

- It was decided to give the children plastic folders to store their writing in. Size and format of the paper to be used for writing was agreed. A range of writing tools (pens, pencils, markers, staplers, fancy paper, erasers, sharpeners) was provided.

8.1.5 Evaluate

December meeting

Teachers had been monitoring the children's progress by assessing their response in mini-lessons and in the share sessions daily. Teachers reported that most children were very excited by the workshop and eager to participate. Some were having trouble coming up with topics on daily basis and needed support. The actual writing samples were showing growth but there were still many children whose writing was not decodable without them there to read it back. Samples were now longer and more detailed than the baseline but children still required support in stretching out the sounds of words. It was decided to present each child with a notebook and a fancy pencil/pen/markers for Christmas to encourage writing at home. It was decided to implement a structured word study programme beginning in January. Professional materials related to this aspect were given to teachers before Christmas so they would have time to read them before implementation. These are detailed in phase two.

8.2 Phase Two: January – February First Class: A Focus on Word Study

8.2.1 Analyse data

In January the following tests were administered:

Drumcondra Sentence Reading Test (DSRT); Observation Survey of Early Literacy Achievement (Clay, 1993): Sub-tests: letter identification, hearing and recording sounds in words, sight vocabulary, written vocabulary (see chapter seven). Analysis yielded insights into children's alphabetic knowledge and indicated that there was a need to strengthen high frequency sight vocabulary and phonic concepts.

8.2.2 Set goals

That the children would:

- Be able to read, write and spell the Dolch sight words by end of school year. (Begin with words that children were misspelling in their writing and add to the word wall).

That the teachers would:

- Work through levels One, two, three of the Angling for Words (Bowen, 1983) programme (initial consonants, hard/soft c/g, short vowels, magic e and consonant digraphs).
- Hold children accountable for spelling correctly the words on the word wall and words taught in word study.

8.2.3 What supports?

Professional development

Reading material

Bowen (1983); Fountas & Pinnell (1996): Cunningham & Hall, (1994); Cunningham, (2000); Cunningham et al., (2004); Iversen (1997); the researcher devised an instructional framework for a synthetic phonics and sight word lesson drawing on the reading material above.

Demonstration

Researcher demonstrated a synthetic phonic lesson in each classroom.

8.2.4 Plan and do

Teachers agreed to implement a daily 30-minute word study lesson in addition to the writing workshop:

- Multi-sensory synthetic phonic programme three days weekly
- Analytic phonic programme the other days (making and breaking words: Cunningham and Hall, 2004)
- Sight word work using the rhymes and jingles in Iversen (1997)

Teachers agreed to monitor children's writing on a regular basis and make notes on skills needed by the children. This assessment would then inform conferences and small group mini-lessons and word study as writing samples would indicate how well the children were applying the word study elements.

Planning meeting: One meeting in the middle of January to monitor how the writing workshop was progressing and discuss the word work.

Individual interviews were also conducted with classroom teachers to ascertain their views on the successes and challenges of the changes so far, and to discuss how they were teaching reading now at this stage of the year.

Resources

- Sets of picture cards and plain letter cards for Angling for Words, small individual magnetic whiteboards, child-size whiteboard markers and sponges for cleaning the white boards, sets of magnetic letters so each child would have a set for word work. A3 sized wedge boards for each teacher and also large magnetic letters for whole class work.

8.2.5 Evaluate

By the end of January most children had progressed to a phonetic stage of writing and as such it was entirely readable by the teacher without the child being present. Writing samples indicated that children were adding detail to their drawings and writing and they no longer needed the intermediate step of labelling their picture and were comfortable stretching out sounds and recording them on paper. Given their success with the changes to date teachers agreed to begin to work toward changes in the reading programme.

8.3 Phase Three: February – June First Class: A Focus on Guided Reading

8.3.1 Analyse data

Observation Survey of Early Literacy Achievement (Clay, 1993): running record on each child to determine a starting point for each and to group children.

8.3.2 Set goals

- Reduce the number of children performing below the 10^{th} percentile on the DSRT and increase the numbers performing at the upper end of the scale
- Monitor children's reading using running records and keep the groups flexible.

8.3.3 What supports?

Professional development

Reading material

(Clay, 2002); Fountas & Pinnell (1996); Calkins (2001); Collins (2004)

Professional development sessions

Substitute cover was provided to release classroom teachers to attend a full-day's in-service on guided reading, levelled texts and the administration and interpretation of a running record in St. Patrick's College. The Reading Recovery teacher in the school offered to share her expertise with her colleagues and provided the training for the running record.

There was a follow-up half-day in-service on word strategy instruction, partner reading, independent reading, motivation and engagement of readers. (The SET team provided cover for teachers on this occasion).

8.3.4 Plan and do

In addition to the in-service days outlined above there were four planning meetings with the classroom teachers and SET team prior to implementation of the guided reading component. This was a big decision for teachers as it meant they would not be able to continue with the class reader in addition to the teaching the guided reading texts. They agreed to experiment between May and June and to evaluate how it was working then. The principal endorsed this decision. The SET team agreed to come into the classroom three days a week and to work alongside the classroom teachers on word work while the teachers were conducting guided reading. (See chapter nine for the rotation and sequence of activities)

There were three more planning meetings between May and June and teachers fed back their response to the changes as they implemented. They were very positive about the changes and felt that the formative assessment measures had given them great insights into the children's strengths and weaknesses. A Book Fair was organised and each child selected a book for the summer.

Parents were invited to visit each classroom in June. The children read their writing to them and showed them examples from their writing folder. The principal then addressed them as a group in the hall and discussed the literacy project with them. The researcher discussed the notion of the summer slump with them and discussed how they might help their child to read over the summer.

The same five children from each class were interviewed about their reading habits in March (see Appendix D for questions). Individual interviews with teachers and one group one with the SET team in June.

Resources

- Multiple copies of levelled texts for small group work (5 copies)
- Levelled texts for independent reading, small bins for storage, small plastic folders for children to take the books to and from school.

8.3.5 Evaluate

Testing at the end of June: Observation Survey of Early Literacy Achievement, DSRT and Nonsense Word Test to determine growth on phonics. MICRA-T administered also.

Numbers below the 10^{th} percentile significantly decreased and numbers above the 80^{th} percentile significantly increased. (See chapter 11 for results and appendix F)

Significant change in quality of the writing samples and in performance on the Nonsense Word Test was observed.

8.4 Phase Four: September-January Second Class: A Focus on Comprehension and Writing

8.4.1 Analyse data

Teachers continued to monitor children's progress on the text levels. As the texts increased in difficulty teachers noticed that children needed more input on comprehension. In addition, they needed to work on developing expression in writing.

8.4.2 Set goals

That the children would:

- Use the following comprehension strategies in reading workshop: making connections, visualising, questioning, monitoring their understanding and clarifying new words.
- Expand their stories to include more descriptive language and work on applying revision strategies in writing workshop
- Write in a variety of genres

That the teachers would:

- Mentor the new First class teachers in beginning the change process by modelling lessons in their classrooms and discussing readings with them
- Teach levels three, four and five of the Angling for Words synthetic programme.

8.4.3 What supports?

Professional development

Reading material

Comprehension: Collins (2004); McLaughlin, (2003); Miller (2002); Writing: Graves (1995), Calkins (2003).

Professional development sessions

A full day in-service in school with substitute cover for classroom teachers. The new First class teachers also attended with a view to beginning the comprehension work in their own classrooms alongside the word work and writing workshop.

Demonstrations

The researcher conducted four comprehension strategy demonstration lessons in each classroom between November and December and one writing workshop demonstration.

Observations

The researcher observed teachers teaching a comprehension strategy lesson in December.

Taping Lessons

Teachers taped two writing workshop lessons and two comprehension lessons and used them to reflect on their lessons and to supplement assessment notes on particular children.

8.4.4 Plan and do

In November the school received funding from a number of sources and used it to purchase a wide range of books for children in a variety of genres. It was agreed that as soon as children reached level 20 that they would move on to reading short chapter books and novels in guided reading groups. A lot of research was done so

that a high-quality range of age-appropriate and motivating interesting books could be purchased. These were subsequently levelled and categorised.

The format of the guided reading sessions changed to suit the strategy instruction. The SET team continued to come into the class three days a week and the rotation of activities was changed according to the needs of the children (see chapter nine).

There were five further planning meetings/professional development sessions with classroom teachers and the SET team to monitor implementation of the comprehension work and the change in focus in writing in order to support teachers as they integrated these changes into their instructional programme.

Resources

- Purchase of books for strategy use as detailed in Miller (2002)
- Range of high-quality fiction/non-fiction for independent reading
- Multiple copies of a selection of novels and chapter books
- Acetates and overhead projectors for modelling lessons in writing workshop.

8.4.5 Evaluate

Testing in February/March: DSRT; DPST; Nonsense Word Test; Writing Sample

Children had largely maintained their gains in reading since testing the previous summer but had not increased significantly. Significant increases were seen in writing and on the Nonsense word test. (See chapter 11 and Appendix F for discussion)

8.5 Phase Five: February – June Second Class: A Focus on Comprehension, Fluency, Vocabulary and Writing

8.5.1 Analyse data

Analysis of data listed above indicated that further work was needed on comprehension and vocabulary. Teachers indicated that though children were able to read items on the DSRT that they still did not get the answer correct, as the target words were not in their speaking vocabulary. In addition, teachers felt more focused work was needed on fluency which is also related to comprehension. In addition, particular children were still having difficulty with aspects of phonics and it was decided that they should have targeted help during guided reading sessions and on days they were withdrawn by the SET team to address weaknesses as identified on the Nonsense Word Test. Teachers also agreed to continue to work on a variety of genres in writing.

8.5.2 Set goals

A number of goals were set for the remainder of the year. That children would:

- Further develop their ability to write fiction and non-fiction
- Become 'word detectives' and notice new vocabulary in their reading material and clarify new words
- Use more sophisticated vocabulary in their discussions and in their writing
- Read with increased fluency (prosody and rate)
- Use reciprocal teaching strategies to monitor comprehension.

8.5.3 What supports?

Professional development

Reading material

Grainger, Goouch, Lambirth (2004); Oczkus (2004); Beck, McKeown & Kucan (2002); Rasinski (2004) www.prel.org

Mandel Morrow, Kuhn & Schwanenflugel (2006); Osborn, Lehr & Hiebert, (2003): A Focus on Fluency: www.prel.org

Demonstration

DVD: Oczkus (2004): Reciprocal Teaching Strategies

Professional development session

A full day of in-service to develop plans for implementing changes in instruction in comprehension, fluency and vocabulary.

Observations

The researcher observed each teacher: one teacher worked on an integrated fiction unit using Grainger et al. as a stimulus and three teachers completed units of reciprocal teaching strategies.

8.5.4 Plan and do

In addition to the supports listed above, there were six further meetings with teachers which were related to planning for changes to instruction prior to implementation and throughout. Teachers communicated strategies for developing fluency to parents during parent-teacher meetings: Choral reading, echo reading, repeated reading, partner reading and reading with expression.

The school was also preparing to upscale the initiative across the other class levles. A whole-school planning day was devoted to literacy. Classroom teachers made presentations to the rest of the staff to bring them up to date on the latest changes and to establish priorities for the following year.

In June final individual interviews were conducted with classroom teachers and the five children in each classroom. A final group interview was conducted with the SET team.

In March group interviews were held with parents of the children who were interviewed in the study.

Resources

- Purchased the fiction books featured in Grainger et al. (2004)
- Purchased multiple copies of non-fiction in a range of levels suitable for use with reciprocal teaching strategies
- Developed charts for reciprocal teaching strategies.

8.5.5 Evaluate

Final testing took place in May/June of Second class.

Significant increases were recorded in all tests: DSRT; DPST and Writing Samples since the outset of the study (See chapter 11 for full details).

9 IMPACT OF THE PROJECT ON LITERACY PEDAGOGY

The teaching of reading and writing in the classes prior to their involvement in the study has been documented in chapter six. A key focus of this study was to collaborate with teachers to align pedagogy with the research base on best practice in literacy and to develop a balanced literacy framework that would be useful for the Irish context. Two school years of professional development (designed in line with the research base on professional development presented in chapter two) were provided for teachers on-site. Semi-structured interviews and observations of teachers were conducted throughout the study to document how teachers responded to the professional development offered and to track the changes they made to their instructional practices. These changes are presented in the next three sections. The first section outlines the shape of the literacy programme and how it evolved over the course of the two years. The second section describes the changes made to bring about a more integrated and cohesive literacy programme with reference to teacher collaboration, the changes in texts used, and grouping practices. The third section explores teachers' reactions to the changes, including the successes and challenges experienced in year one and year two in relation to the teaching of reading and writing.

9.1 The Shape of the Literacy Programme

The time allocation for literacy instruction in the school, prior to the study, was typically about an hour which was broken up into different time slots throughout the day for the teaching of reading, writing and word identification skills such as sight vocabulary and phonics (chapter six). Given that the research (Shanahan, 2001; Calkins, 2001; Fountas & Pinnell, 1996; Knapp, 1995) advocates block scheduling of time for literacy in order to allow for opportunities for extended and in-depth exploration of reading and writing and the teaching of essential skills within these contexts, a collective decision was taken with the teachers and principal to begin working towards providing that in the school. Ninety minutes for literacy is considered a minimum commitment internationally. In the Irish context, 90 minutes

has also been recommended in relation to disadvantaged schools, as researchers argue that children need more time allocated to literacy if they are to catch up with their more advantaged peers (Eivers et al., 2004). Shanahan (2001) goes further and advocates a minimum of two hours (30 minutes on each of the four blocks in the framework and three hours if acceleration is required) based on the findings of the Chicago Reading Initiative conducted in high-poverty inner-city schools. Given the short school day in Ireland, the teaching of a second language and the breadth of curriculum (12 subjects), any more than 90 minutes is probably unrealistic. As documented in chapter eight, over the course of the first year of the study, teachers gradually moved towards providing a 90-minute block for literacy. This was achieved by prioritising literacy amongst the four classes and co-ordinating and rotating schedules with the learning support team. Following consultation with teachers, a 30-minute block was allocated to the teaching of writing in late October of First class. Having experienced success in teaching writing through a workshop approach, teachers were more open to adding another block of literacy time to their programme, so, in January of First class, a further 30-minute block was added to accommodate a word study programme which included word-identification strategies, phonics and sight vocabulary. The composition of this programme is detailed in Table 9.1.

Table 9.1 The shape of the literacy programme in First class

	Monday/Friday **All classes**	**Tuesday-Thursday** ***After Easter First class***
Writing Workshop	9.00-9.30 *Introduced October First class* Mini-lesson, conference, share session	9.00-9.40 Class B/Class D 9.40-10.20 Class A/Class C
Word Work	*Added in January First class* 10.00- 10.20 Phonics 10.30- 10.40 Sight vocabulary	
Reading Workshop	9.30-10.00 *Added after Easter First class* (Guided Reading levelled texts and word-identification strategy work) Use of strategy glove; multiple strategy use and cross-checking with phonic knowledge	9.00-9.40 Class A/Class C 9.40-10.20 Class B/Class D Rotation of activities: 3 x 13 min. • Guided reading (apply strategies) • Sight vocabulary • Phonics games
		10 minutes: teacher discretion any aspect

The final 30-minute block was added after Easter of First class when guided reading using levelled texts was introduced to the classroom and replaced the class reader that was in place until that point. Tuesday through Thursday, the special education team (SET) came into each classroom for 40 minutes and worked on the classroom teacher's reading programme, rotating groups every 12/13 minutes and giving children access to a range of activities within the timeframe (Table 9.1). The SET team worked systematically through word families in phonics and the Dolch sight vocabulary lists which were usually contextualised using rhymes and jingles. These are discussed further in the sections on word work below.

On Mondays and Fridays the classroom teachers reverted to the 30-30-30 minute allocation. During the reading slot on these days, children were given the opportunity to self-select their own texts for reading from colour coded 'browsing boxes' (Calkins, 2001; Collins, 2004) (see guided reading sub-section below). Teachers used this time to do some whole class lessons on word-identification strategies or used the time to do some small group work while the children who had been allocated learning support or resource time were withdrawn for small group or one-to-one instruction. Strategy work was usually done when all children were in the class so all could benefit from using the strategy.

Table 9.2 The shape of the literacy programme in Second class

	Monday/Friday All classes	**Tuesday-Thursday**
Writing Workshop	9.00-9.40: Mini-lesson, conference, share session. Genre writing: fiction/non-fiction, poetry	9.00-9.40 Class B/Class D 9.40-10.20 Class A/Class C Mini-lesson, conference, share session. Genre writing: fiction/non-fiction, poetry
Reading Workshop	9.40-10.20 Comprehension strategies: Pearson and Fielding model Mixed ability groups Variety of texts Strategies of good readers: • Visualising • Making predictions • Making connections • Asking questions • Summarising • Monitoring	10.00-9.40 Class A/Class C 9.40-10.20 Class B/Class D *Rotation of activities 3 x 13 min.* • Guided reading: novels/non-fiction: apply strategies • Vocabulary development • Phonics (for those who needed it) *After Easter* 9.00-9.30 Class A/Class C 9.30-10.00 Class B/Class D 3 groups in each class: each teacher works with a group for 30 minutes on multiple strategy use and Reciprocal teaching
Word Work	10 min. Vocabulary dev.	
		10 min: teacher discretion 20 minutes After Easter: teacher discretion

In year two of the study, the same routines operated but the focus of the instruction changed (see Table 9.2). The rotation of activities included some work on more difficult phonic concepts as indicated by children's performance on the Nonsense Word Test (see chapter 11 for results), vocabulary development or comprehension strategy instruction. As one teacher said: 'it looks quite dynamic you know, it is dynamic in that we would rotate the children so they are getting three different activities... It's a lot of movement and they're hitting different areas on each, which is great.' (FIA/p.2-3).

In November/December, professional development was provided for all teachers in the study on comprehension strategy instruction. The strategies were those typically used by good readers, many of which were cited in the National

Reading Panel report (2000) as being important to include in a reading programme as they were supported by the research base. These strategies included: asking questions before, during and after reading; visualising; making predictions, monitoring for understanding, and making connections. In addition, follow-up professional development was provided in April on multiple strategy use and Reciprocal Teaching routines (Palinscar & Brown, 1984; Ozckus, 2003). Teachers put these aspects into practice after Easter. This ensured that in each lesson children were practising using the skills of predicting, questioning, clarifying words and ideas and summarising. When this was implemented the learning support teachers and the classroom teachers each took a group for instruction for a full 30 minutes, working their way through the 4 strategies using a non-fiction text. The emphasis was on the consolidation of strategies and the encouragement of self-regulated learning (Bandura, 1995; Zimmerman 1995; Paris et al. 1995).

Teachers reported that the extra time spent on literacy was worthwhile and had also had a major impact on the teaching of other subjects, as evidenced by the following comment:

> I never feel like literacy is stealing time from something else, it's actually giving back.... actually I've noticed, I had second before the project, like they couldn't even read the instructions on the maths book, so it was stopping everything really, having no literacy....Even if they had good mental maths or they were good at maths they couldn't even read the question, like put a circle on, they hadn't a clue. So you really need literacy for everything and you can't really enjoy SESE either, you can't even read a simple poem on animals or read a question. So, really if you're caught on the literacy, whatever you do in literacy, it helps everything. (FIB[3]/p.31)

At the start of the project most of the teachers would have felt that 90 minutes was rather a long time to spend on teaching literacy. But the professional development over the two years had introduced the current research base to them and given them the pedagogical strategies to translate it into practice so, by the end of the study, they found that there was not enough time within the 90-minute block to teach everything

[3]Individual Interviews with teachers: F(Final), M(Medial), I(Initial) Class teacher: ABCD; SET team: SET(LSABCD); Group discussions with class teachers: CL(1..) and together with SET: CLST (1...)

well (see chapter 10 for discussion on impact of the project on the teachers). As one teacher said:

> And it's great too because you've all these aims you want to fulfil....When I had the children the first time I was like what am I going to do in the afternoon now....Now it's like God, oh my God, how will I get all of this done? You have more aims for the children, you realise there is a lot to get done and reading isn't just a one process thing, it's fluency, it's language, it's comprehension it's everything. That's, I suppose, what I've learnt the most as well. (FIB/p.51)

Making the best use of the time available was a constant juggling act and involved regularly changing the focus according to the stage of development of the children but teachers were very creative in their approach. They frequently intertwined literacy instruction with other subjects and seized opportunities to teach both simultaneously, a practice that has been associated with exemplary teachers of literacy (Pressley, et al. 2001). As one teacher said: 'Yeah everything now I'm thinking of is, SESE, how could I have this have a dual purpose, how could I have a, do you know, working with the literacy as well' (FIB/p.31). This worked particularly well when themes were being explored in SESE and teachers could link the texts for guided reading with these themes, while also addressing the features of non-fiction writing in the writing workshop. Graves (1994) and Calkins (2003) have suggested that children need to be reading widely in the genre in which they are also expected to write as it helps them internalise the different language registers and structures required in writing these texts. This helps them to 'write like a reader and read like a writer' (Duke and Pearson, 2002, p.208). In the Knapp study (1995) of meaning-oriented classrooms in high-poverty schools, reading and writing activities were frequently integrated in the highest-achieving classrooms. Another example of integrated instruction occurred in another class as fluency instruction was intertwined with the writing workshop. As children prepared to read their own texts aloud they were applying the principles taught in reading workshop and regularly gave each other feedback on their performance. This kind of instructional density has been identified as a feature of exemplary literacy instruction (Wharton-MacDonald, 1997; Lipson, 2004).

All teachers associated the consistent daily time allocation as being one of the factors linked to the significant gains they had observed in children's reading and in particular, writing achievement:

> R: So what about, what do you think contributed to that growth then? Those changes that you're seeing in the kids?
> T: I suppose the consistency, like we were doing it every day, it wasn't like writing workshop was a once off, it wasn't like oh we will do it one week and we don't do it the next week. Because it was so consistent, they just saw a pattern and they knew this is what's coming next, it was a predictable thing and even though we were adding new things each time with all the mini lessons, more and more was contributing to it, they got the idea of well this is what we do now and they knew the pattern (FIC/p.32)

Research has also demonstrated that having blocks of time facilitates deep engagement with reading and writing and the development of higher-order literacy skills (Pressley et al., 2001; Knapp et al., 1995; Calkins, 2001). Other researchers have noted the impact of a predictable time and routine on children's engagement with literacy. Graves (1994) has suggested that when a daily time is provided for writing, that children enter into 'a constant state of composition'; in other words, because they know that they will have a consistent time to write in school, they invest in thinking time about writing while outside school and come to school prepared to write. This was also seen in this study as one teachers remarked: 'I'd say doing it every day as well, because you know when we do it every day and some of them come in 'Oh I've got a good few ideas, I was thinking of them last night', you know' (IIB/p.13). Calkins (2001, p.66) too argues that 'it is important to maintain a simple predictable structure because it is the work that children will do that will be changing and complex' and that children need to be able to anticipate these routines.

9.2 Classroom Organisation for Literacy: Working Toward an Integrated and Cohesive Literacy Programme

9.2.1 Collaboration among teachers

As noted above, after Easter in year one, when teachers had participated in professional development on guided reading, the organisation of the classroom changed to accommodate a more collaborative approach to reading instruction

between the classroom teachers and the SET team. Lack of cohesion between classroom and learning support programmes has been highlighted as an area needing development in the Irish context (DES, 2005b; DES, 2005c; Eivers et al., 2004). As outlined in chapter six of this report, there was a withdrawal model in place for learning support in the school and teachers reported having little formal time available to meet to plan work collaboratively. Teachers' reactions to this collaborative work are explored in the next two sub-sections which focus on the benefits of and barriers to the collaboration.

Benefits of collaboration

The learning support teachers felt it was a good use of human resources and that it freed them up to work on very specific aspects of literacy in an intensive and fast-paced way. Fast-paced instruction in basic skills, which has been systematically planned in response to the needs of the children, has been found to be a feature of the instruction of exemplary teachers of literacy (Lewis & Ellis, 2006; Wray et al. 2002; Wharton-McDonald et al., 1997; Pressley et al. 2001). The on-going formative assessment measures employed (see sub-sections below) contributed to the plan, teach and assess learning cycle. This has been highlighted as meriting greater attention in the Irish context (DES, 2005b, 2005c). In addition, when the SET team withdrew children on the other 2 days there was more opportunity for them to focus on reading connected text and to help children to use the skills that they had encountered in the small group work in the classroom. Because they were very familiar with the classroom programme they could ensure that the approach they were taking on the other two days was more closely in line with the classroom programme, leading to a more coherent literacy experience for the child, which again has been highlighted in the literature as being important (Santa & Hoien, 1999). The following comments are illustrative of SET team's reactions:

> I thought it worked very well. Well, especially last year when we went in at the initial stages and we had very specific things to do like the word work and the spelling and the Dolch. I thought it was really good. I mean it was a good way of trying in-class because you had a lot of direction on how you wanted to structure it. You know immediately there was a need there and you filled it by going in so it wasn't going in for the sake of going in....it just seemed to be a good use of manpower really. (Set2LSA/p.2)

Equally, classroom teachers were supportive of the initiative and felt it made a major contribution to overall coherence for the child:

> I think you definitely need to have the collaboration in place otherwise you know you all have different aims. But we need to sing from the same hymn sheet. If you try to do too many things the child is not going to absorb anything but if we're all at the same aim and it's reinforced the whole time then hopefully it will sink in. Because the children can't benefit if we're all going on different tracks, we're all going down different roads, we need to be going on the one road trying to try to get to the one place. (FIB/p.9-10)

> But I found the SET people coming in that was fantastic, that was like reinforcing, it took care of a lot of the teaching points that came up as well. (MIA/p.5)

This integration of classroom and special education programmes is often cited as a key element of successful literacy programmes. Conversely, lack of cohesion has been cited as one of the factors contributing to low achievement in disadvantaged settings. In the CIERA study, '*Beating the Odds*' (Taylor et al., 1999), it was a feature of the most successful urban schools serving large numbers of children with low levels of literacy and was referred to as 'push-in collaborative teaching.' It was deemed to be an effective way of responding to large numbers of children requiring help.

Learning support teachers also expressed the view that when the small group work was being facilitated on the days they were providing in-class support, it meant that every child was being taught simultaneously and was not left to work independently: 'You know that they were actually very productively involved in something else, because they were getting very focussed teaching in their time' (Set2LSA/p.3). This allowed for the kind of 'instructional density' associated with effective literacy teaching (Wharton-MacDonald et al. 1997; Lipson, 2004). They also felt that the focussed teaching children received in this time contributed to the gains they saw, particularly in relation to the children's writing. They felt the gains were due to the fact that the consistent time was provided alongside the motivation and encouragement but that the explicit skill work conducted during the small group instruction was also a factor (see also section on word work below):

> But I think the other thing was, that behind that, you were encouraging them to try it (writing) and you were getting them to start and you were giving them great, what would you say? Spurring them on to do it, giving them great encouragement but at the same time the rest of your teaching was really focussed, like you were teaching them skills, phonics skills and all that word work and the making and breaking so they were actually skills that they had that they could bring to it, it wasn't just kind of saying "you can do it, you can do it."(SET2LSA/p.22)

Decontextualised learning of skills has been highlighted as an area of concern in the Irish context (DES, 2005b). In contrast, in this study the skill work was embedded in meaningful contexts and children had an immediate use for the skills they were learning. They could also see the purpose of learning to read, write and spell the sight words and the letter sound combinations they were learning in phonics lessons. Teaching basic skills in authentic reading and writing contexts is also a feature of exemplary teachers of literacy (Wray et al., 2002; Topping et al., 2005; Pressley et al., 2001, 2002; Knapp et al., 1995).

Many of the teachers were also of the opinion that the in-class support was useful from an affective point of view and that it benefited children to have a range of different teachers interacting with them on a personal level. This, in turn, contributed to children being more active in lessons and enhanced their motivation to do well. Teachers were also keen to share with each other insights they had discovered in relation to particular children and felt that this sharing of information benefited the children:

> I think also the children like the idea of having another adult or interacting with another teacher and being able to maybe show off a little bit. And sometimes it's invaluable for the teacher to talk to you, how you found a particular group or a particular child compared to how they might. (SET2LSB/p.1)

Another benefit for the learning support teachers was the opportunity to work with children of all levels of ability which they felt kept them grounded in reality and in tune with what children of a particular age were capable of:

> I had the better group and that was lovely for me cause I had children who could read, who could read things into the reading right, so it was a lovely break for me! From a selfish point of view! (SET2LSC/p.6).

Furthermore, teachers valued the opportunity to observe each other in action and felt that it helped to reduce the isolation often experienced in teaching:

> XXXX is so experienced she really knows what she is about, so I would have learned from watching her as well...particularly I was watching how she taught spelling and how she set it up and some of the games she had, those you know those ch/sh's but how she introduced it, I actually learned a lot there. (FIA/p.22)

Thus there were a lot of benefits to the collaborative teaching approach utilised but it was not without its challenges.

Barriers to the collaboration

As some of the effective schools literature has indicated there are many factors both within the school and outside that interact to affect the quality of a child's literacy experience (Taylor et al., 1999). The biggest barrier to the smooth operation of the initiative was the lack of provision of time for dedicated planning between the classroom teachers and the learning support team. This was partly due to the fact that time was currently being given in school for the professional development and teachers did not feel it was fair to ask colleagues for further cover outside of that time. As classroom teachers were directing the work in the classroom, it was vital for the learning support teachers to be aware of what the classroom focus was and what particular needs needed to be met on a day-to-day basis. The level of dialogue between teachers varied along a continuum of frequent chats to moments grabbed here and there. It was a constant source of frustration for teachers which is captured by the following comments:

> There is that link is *sometimes* absent there. Now we do talk to each other because we would meet each other a good few times, and I would kind of make it my business to ask how they were getting on. I would be interested in how they were getting on. (FIB/p.6)

> You know how's your group doing? What might I do with my group cause I'm not pushing them on or kind of find out from the other people instead of trying to find out on the run, at lunch time, running up the stairs, down the stairs. (SET2LSC/p.4)

As can be seen from these exchanges, teachers were excited about the work they were doing and were eager to discuss, debate and consider how they might build upon it and further extend what they were doing to benefit the children. Different perspectives emerged about how this time should be facilitated. Learning support teachers felt very strongly that it should be recognised as part of their day and that dedicated time needed to be set aside for it. Classroom teachers, on the other hand, while they would value highly more consultation (as one teacher said: 'you can never have enough consultation'), were reluctant to take more time out of the school day to facilitate it. Teachers had many ideas on how the time could be facilitated when considering how to spread the change process school wide and these are presented in chapter 10.

After Easter in the second year of the study, these problems were somewhat alleviated when each teacher (classroom and learning support) took over responsibility for one particular reading group in a given classroom to implement the reciprocal teaching strategies. This meant they were able to plan instruction for three days in a row with the same children and they only had to liaise with the classroom teacher once a week and as one teacher said: 'yeah it was good for me.... and I felt I had control over what I was doing with that group, there was continuity' (SET2LSC/p.6)

Another factor that created a difficulty was the timing of the school breaks which was not ideal in that it was difficult to fit two 40 minute rotations in between 9.00 a.m. and the first break at 10.20 a.m. It required discipline and organisation of materials in order to make best use of instructional time. On occasion, sessions did not begin on time and this had a knock-on effect for the other classes. These were issues that the school addressed in the year following the study as they moved toward whole school implementation (Personal Communication, LSA, February, 2008) and the timing of breaks was adjusted.

Notwithstanding these difficulties, overall the teachers felt the collaboration was a worthwhile endeavour and that they had seen enough benefit from it to continue to work out the difficulties involved in order for the process to run more smoothly. It was also clear from assessment data (see chapter 11) that this small

group instruction had had a positive effect on children's sight vocabulary and phonic skills and was another reason for teachers to continue the collaboration.

The difficulties teachers have highlighted here in relation to collaboration are perhaps evidence of the first 2 stages of development (self-oriented, task-oriented) in the change process as indicated by the Concerns Based Adoption Model (Hall & Hord, 1987) as teachers initially are most concerned about how the changes are going to impact on them personally before moving on to address management and organisational issues affecting the change process:

> It has made a big difference so you have to look at it that way too, rather than wishing it all to be perfect from the start. We were only trying it and we learned a huge amount from it. Like I suppose the whole thing is that everybody is trying to change. It was a change in the focus and the way you went at teaching. (SET2LSA/p.9)

As the school change literature indicates, real and lasting change takes many years to achieve and the difficulties highlighted here are illustrative of the processes that schools go through in confronting these issues (Fullan, 2003).

9.2.2 Texts for literacy

All children had been assigned to a reading group and were reading at different levels of the reading series adopted by the school. There were supplementary and parallel readers available and in two classes children were sometimes involved in paired and/or individual work in relation to these materials (chapter six). A number of researchers including Fountas & Pinnell (1996), Pressley (2002) and Calkins (2001) have documented the need for children to be immersed in reading a rich variety of texts matched to their instructional level in guided reading experiences and also to have opportunities to read independently for pleasure on self-selected texts. Teachers had identified a dearth of texts suited to children's instructional and independent reading levels. In year one, multiple copies of a large variety of levelled texts, which typically have at least 10 books available at each of 30 levels, were purchased (see chapter four, for a discussion on these texts and how they differ conceptually from the basal reader). As it would not be possible to continue to work

with the class reader and also operate reading groups for these new texts due to time constraints, a collective decision was taken to put the class reader aside for the remainder of the year. This was a big decision for teachers, as it required a major leap of faith. As one teacher put it at a planning meeting:

> It's a big shift isn't it...you are really completely throwing out the traditional reading approach and when I was reading (professional material provided), all the studies are showing that it really doesn't work so while it would be a huge organisational thing to get my head around it, I would really like to give that a go. Just seeing the progress so far and the kids' response to it, they are really engaged in a way I have not really seen them before. (CLST3A)

The catalyst for having-a-go was the success the teachers had already experienced with the earlier elements of change and the enhanced motivation of the children. They were more confident about taking a risk and decided: 'We have an opportunity now to try something unique, let's go with it for the next few months and see if works' (CLST3LSC) and the decision was also endorsed by the principal. This is in line with the change literature, which suggests that teachers need to experience success quickly with new approaches so they will stay the distance, and continue to take risks with the next changes (Guskey, 2003). It is also characteristic of successful schools which encourage experimentation and piloting of new approaches before introducing to the whole school (Lein et al., 1997). By the end of the second year, all teachers were entirely comfortable with the new approach and positive about its effects:

> I mean even if you have your supplementary stuff there's not enough in the XXXX programme to keep you going. You'd nearly be saying "now don't read more than two pages tonight because you can't run ahead". I mean it just sounds so backward now. (FID/p.41)

> Engagement in text, there was a huge change there and now looking back, it seems like ridiculous that they would read three books within a year in the XXXX programme, now looking back having gone through this. Whereas, when you're doing that you think they're doing fine even though they would read other supplementary material but the amount that they have engaged in the world of books... .FIA/p.16)

There were some teething difficulties in managing the range of books and sharing them between classes. As children generally read three or four books at each level, teachers were required to share texts between classes. When children were absent or when they forgot to bring the books back it created problems:

> Really we will all have to really track all the stuff all the time. There's all this kind of manic, you know as you were doing it, XXXX would come in to me to say, have you got any more 14s, swapping them. (MIA/p.7)

In the second year, as children began to move beyond the levelled texts, the problem was less acute and the book supply was augmented with 5/6 copies of particular novels, short chapter books and non-fiction material. There was, however, a need to develop a tracking system for all of the materials and to store them in a central location for easy access. Having a range of texts available to them meant that teachers now had to consider how best to group children and match them to the correct level of text.

9.2.3 Grouping practices and assigning texts

Learning how to assess regularly and to form and reform groups to match children to texts at their instructional level was a new challenge for teachers. When planning the range of supports that would be needed for the change in approach, the Reading Recovery teacher offered to share her expertise and provide the training to teachers on how to administer a running record and how to then analyse it to determine the reading strategies children were using and what particular word identification difficulties children were having. Teachers felt that this was useful:

> One of the things that struck me was the running record. I mean that was a whole new thing for me, a running record and to analyse why children are making the errors but it made you look at, you know, it made you understand things. (SET2LSB/p.32)

Differentiation has been raised as an issue in the Irish context (DES, 2005b, DES 2005c). Having a range of texts at their disposal allowed teachers to truly differentiate for children's needs and the process of analysing running records gave

teachers access to information about the child that they would not otherwise have had. One teacher remarked on a child she had placed in her middle group: 'very surprised at the level she achieved. She was doing ok in the group of 8, but I realise now that she could do with more of a challenge. You really get to know the children well'(CLST4A). Teachers now felt more confident about placing children in groups to suit their needs and now that the learning support teachers were coming into the classroom, they could concentrate on the reading group instruction and not have to monitor the rest of the class:

> I think the XXXX books were very good too, because you could start them off at the level they were at. They could see their own progression as well and they were motivated because they wanted to go up the levels. And it was easier to group the children then because you weren't wondering what can this child, you know you had a clear idea when you had done the levelled texts. (FIB/p.4)

In the second year of the programme, children had outgrown the levelled texts and had moved onto novels and more difficult non-fiction books. When this occurred, teachers sampled children's reading of text to determine a good fit with the group and also used children's interests to determine book choice for the guided reading. As they became more familiar with the range of texts they appeared to be quite adept at matching children to books:

> Well at the moment actually the books are quite good because there is a good mixture of books. Like there are the simpler books which suit because there is a kind of a smaller amount of text but great language and great story plots going on. Like you know *Precious Potter*, where there is good language like precious and twins, but at the same time not huge text coming at them. So the kids enjoy it because there's loads of pictures as well to complement. There is a huge amount of information coming to help the child get through the text....(FIB/p.39-40)

Teachers also experimented with a range of grouping practices and used their formative assessment records to regularly change the composition of groups.

Formative assessment

There was also much evidence that over the two years most teachers had shifted their practice to a flexible dynamic grouping model (Fountas & Pinnell, 1996; Calkins

2001) with groups changing in response to the emerging needs of the children and also the particular purpose of the lesson. This approach has been found to be effective in high-achieving disadvantaged schools (Taylor, 1999, 2002, 2003). There was evidence too that teacher used their own observations alongside the running records to take critical decisions about when it might be appropriate to move a child, e.g. to give them the nudge they needed to make the next leap forward:

> I had XXXX in the weaker group for a while but then I felt since his language was improving and even for his own self-esteem I moved him up there a while ago to the middle group. And now even though he mightn't be able for it, I think it's still good even for his own self-esteem. To know like, oh Teacher *does* know if you have brilliant language and she *does* know if you are really trying hard. Then it's not fair on him either to be with maybe the weaker children where he is talking so much beyond them and he is not hearing his thoughts mirrored back, he is not hearing the kind of quality he is hoping for. And he is always like kind of the star of that group. And you need to have flexibility there. That's why it's important to do assessment with those too, which children need to be in which groups or you know this group mightn't suit the child at all. So it's important to keep the groups moving. (FIB/p.34).

The learning support teachers were very flexible with the process and adapted to the changing format of the groups, which of course impacted on their small group work. As can be seen from the tone of the following exchange between the learning support teachers, the notion of dynamic grouping was new for them but they were positive about it and its motivating effect on children:

> LSA But sometimes they changed, particularly at the start
> LSD If they actually improved that they were good enough to go to a different group. Then sometimes she just mixed them cause she thought, oh that one just needs, let's see how good they will go, with the stronger group
> LSB There was a lot of trial like, you know, it was good because people were prepared to do that, not just stick them in set groups
> LSD I loved seeing them change
> LSC So did I, seeing a child being promoted, you know even though an odd time, oh God, it was kind of a tenuous kind of promotion, you know, you didn't know whether he'd cope or not, but they stretched, because they were promoted. (SET2/p.15-16)

Teachers also reported finding it difficult to keep all children in the right grouping all of the time and to keep the groups fluid as children progressed. This was particularly true for children who were in the middle and who changed quickly as this teacher points out:

T: The middle group... I think that is one of the challenges, as we found out, is to have them in the right grouping, and to have, what is the word you would use... the fluid groups, what do you call that?
R: The dynamic grouping
T: The dynamic grouping, I think that in a way we didn't have long enough at it, actually next year I think, now that we have an idea of the programme and have an idea of how it works, then I think it would be more successful doing grouping. And still next year we will have, periods where kids will take off, like I discovered with mine the group of six started to stretch you know. (MIA/p.3)

In each classroom, there was one child reading significantly above all of the other children in the room and in order to give them the opportunity to interact with other children on their own level, another grouping was devised in response. These children left the classroom and worked together with one of the SET team, which teachers felt was very important for those children:

> And then the strong ones going out was brilliant as well. I really feel that's a great difference now because they would have been on those books maybe in a corner by themselves. They know they are strong enough but they do like the interaction. (MID/p.8)

In the second year of the study, on Mondays and Fridays, when the learning support team was not in the classroom, children were involved in reading self-selected texts and were also in pairs for practicing strategies. In one class the children were partnered according to ability but, in the other three classes, teachers utilised mixed-ability partnerships so that lower-achievers could be supported by the higher-achievers:

> But if they're working in pairs, I'll try and pitch somebody who is a bit stronger with somebody who's a bit weaker just so that if the weaker one is reading then the other one can scaffold. I've done that a good bit and some of them are very patient and good at doing that kind of thing (FID/p.26)

Teachers also were mindful of children's personalities and tried to partner children according to personality as well as mixed ability so the maximum benefit would be derived from the instructional experience. Teachers saw it as a useful opportunity for oral language development as it afforded children the opportunity to converse more easily than occurred in whole class teaching. It was clear that teachers valued the

contribution of paired work and saw it as an opportunity for peer learning and for children to scaffold each other. Holding children accountable for their co-operative work is also a critical part of this kind of approach so children know they are engaged in important learning when they engage in this work (Calkins, 2001; Collins, 2004):

> As I was saying before I was partnering them with ability and also with personality too. There were some children like wouldn't work well together...maybe two of them would be too competitive, and you couldn't have that. I'd say for XXXX now for instance, I might have to mix her with somebody maybe a little bit higher than herself just so that she is on the right track....And it's good for her to hear XXXX, his language....he would be quite polite in that he would give her an opportunity to speak and he'd be kind of making her accountable for talking as well share your own (thoughts/work) and that kind of stuff. So I'd say it's kind of personality but also ability but also who they like working with as well, like if they say to me I'd like to work with a person I usually would, if it didn't work out I'd change it, we'd see how they got on (FIB/p.13-14).

This kind of co-operative peer work is often a characteristic of effective schools and classrooms (Lein et al., 1997; Pressley 2002; Knapp, 1995). Regularly providing opportunities for collaborative work and providing for choice within it has been found to be motivating for all children (Guthrie & Anderson, 1999; Allington, 2002) and particularly so for boys (Younger et al., 2002). As children were allowed to select their own books for independent reading and sometimes strategy lessons, teachers put an emphasis on helping children to choose books appropriate to their level.

Support in choosing texts

Calkins (2001) and Collins (2004) make the point that children need to be taught how to select what they call 'just right books.' To facilitate this choice, colour-coded 'browsing boxes' (Calkins, 2001; Collins, 2004) were set up in each classroom (see Figure 9.1.) Each box contained a number of levels of books that were within a particular range so children could choose a book that was a little easier or more challenging than the level they were on in their reading group. Gambrell (2007) refers to this as 'bounded choice' and a necessary skill for children to develop so they are enabled to choose appropriate books.

Figure 9.1 Sample of browsing boxes

When children made inappropriate choices e.g. a book that was too easy or a book that was too hard, teachers intervened and discussed the issue with the children, as can be seen from the following examples:

> On the Monday and the Friday when they're choosing books I'm still reminding them how to choose a just right book and you find some of the really good ones are choosing very easy books but I suppose they're picture books then they're going by the attractiveness of the books which is ok too. But if they pick a book like that I'll ask them to pick two, you know, another one that's more suitable and then that one for easy reading. (FID/p.26)

> It's important to teach them to choose the right book because seeing a child who maybe had low ability and seeing them read this completely too hard book... but they have to know, listen this isn't for me and it's not because I am a bad reader, it's because it's not suitable for me **yet**, it's like choosing something to eat, you're not going to pick, if you're allergic to that you're not going to pick it. It's a selection process...You have to explain, if you are going to pick a book that's too hard well sure you're going to be sitting down looking at the pictures just flicking, you're not going to get much out of it. (FIB/p.45-46)

This kind of scaffolding of book choice was critical and communicated powerful messages to children that reading was about constructing meaning not just decoding. Also the use of the word *'yet'* in the example above communicated to children that the teacher expected that they would be able to read the more difficult book at a later stage in the year. Communicating high expectations such as these to children has been cited as a characteristic of exemplary teachers (Pressley et al., 2001; Allington, 2002). In these classrooms children were expected to discuss their choices and their responses to what they were reading. The variety of groupings apparent in most of the classrooms by the end of the study (small group on instructional level, mixed

ability partner work and individual) and the understanding teachers displayed around the need for such groupings are representative of exemplary classrooms for literacy instruction whereby children's participation is greatly increased and there is a high premium put on talk – both teacher-pupil and pupil-pupil – and children spend most of their time reading texts that give them the 'a lot of high-success reading experiences in order to integrate the complex skills and strategies into an automatic, independent reading process,' (Allington, 2002, p.743). Finally, children were encouraged to read independently and widely every opportunity they got, as the following teacher put it:

> But I also let the children choose a lot themselves. I would do that a lot unless it was really way out of their reach and I'd also let them read any amount they wanted to read....Say in the top group there were three of the readers there who wanted to take home two or three books a night. I'd let them take home whatever they wanted....to get them into the idea that all the resources like the library you can get through as much as you want...so I never put any restriction on that. (FIA/p.13)

At the end of the first year of the study, in an effort to encourage children to read over the summer and prevent the impact of the so called 'summer slump' (Allington & McGill Franzen, 2003; Cooper et al., 1996) children were given the opportunity to select a book to keep from a book fair that was set up specifically for them. The organiser commented that she was 'most impressed' with the children as they were very 'judicious and considered' in their book selection and spent a lot of time looking through the books before making a decision, further evidence that they had internalised the process of how to choose a suitable book.

The next section examines the changes that teachers made to their pedagogical strategies as they introduced new texts and grouping practices and worked with the SET team to design a stimulating and challenging balanced literacy framework within their classrooms.

9.3 Changing Instructional Emphases: Successes and Challenges

The instructional focus of reading time at the start of the study was more on hearing reading and on helping children read the class reader more fluently than on

implementing a guided reading programme utilising a problem-solving and strategic approach. A lot of energy was put into teaching vocabulary for a text prior to reading the text and in many cases teachers read the text aloud for children before asking them to attempt to read the text. In this way, one to two pages of the class reader were taught daily and children gradually worked their way through the books for their class level (chapter six). Over the course of the study, there was evidence that teachers had adopted more of a scaffolding and coaching role in literacy lessons, again features of instruction utilised by exemplary teachers of literacy (IRA, 2000; Taylor, 1999, 2000, 2002, 2003; Allington, 2002; Pressley, 2001, 2002; Wharton-MacDonald et al., 1997; Wray et al., 2002). Support for teachers took different forms in each year. On-site professional development was provided, as was a range of professional reading material to help teachers begin to see how this kind of teaching might take shape within a classroom (see chapter eight).

9.3.1 Guided reading in year one

The main focus of the professional development was to help teachers adopt a guided reading approach to small group instruction such as that outlined by Calkins (2001) and Fountas & Pinnell (1996). Teachers opted to adopt a blend of the two (see chapter four for a discussion on the different emphases of each). This required teachers to learn to facilitate children's learning and to undertake different roles before, during and after reading. Their reactions to this kind of instruction are explored in the following sections.

Scaffolding through book introductions

Book introductions are considered to be a key part of guided reading but are also considered to be a very challenging aspect of the approach. Pinnell has suggested that book introductions are 80% of guided reading (Pinnell, cited in Calkins, 2001) All teachers reported using book introductions prior to reading the text though not all teachers did them for each book at each level. One teacher suggested that they were most useful when children were at the earlier levels of text rather than at the upper levels, as there was a lot more text and children did not need that level of support to read at the higher level:

> I did some of that but I found that to be of most benefit to the weaker group. I found that doing the running records as well, actually there was a difference when you did the book walk and you didn't. Definitely there was.... the top group did not want to do that, they just wanted to read it and because there was so much text on theirs it didn't actually help them as much as it helped the weaker ones. So it worked well, I did it mostly with the weaker group and the middle group. (MIA/p.6)

Teachers also reported that they could see the benefit of the book introductions and that they could see a difference in children's oral reading of the text when they did not do one, particularly in relation to the background knowledge that might be needed to access the text:

> T: It's different because they could be on a level 12 and it is perfect and then give them another level 12 and just because there is one word in there they don't know and they could do 13 perfectly and 12 they could have a huge problem so you kind of have to use your own discretion there as well I think
> R: Sometimes it could be the language?
> T: That is because some of the time I didn't do the book introduction. I'd say if you did then you would get rid of that problem
> R: You didn't always do a book introduction
> T: No there wasn't time some of the time... (MIB/p.5)

Role of the teacher during reading and after reading

Another key feature of guided reading is giving children the opportunity to read the whole text through either silently or in a whispering voice while the teacher observes how all of the children in the group are handling the text on their own and makes notes to make a brief teaching point at the end of the lesson (Calkins, 2001; Fountas & Pinnell, 1996). Allington (1983) has suggested that low-achieving readers especially are often treated differently by teachers and are more likely to be asked to read aloud and to be interrupted while doing so. This approach ensures that this does not occur and when teachers opt to sample a child's oral reading of the text, they are observers and recorders of errors. All teachers reported sampling children's oral reading during the guided reading session. They took notes (like a running record) and found this aspect invaluable for picking up teaching points on aspects of word-identification that particular groups needed and used that information for follow-up. However, due to the time constraints, this mini-lesson was usually conducted at the start of the next lesson or at a different point during the day rather than at the end of the lesson:

> I would have this notebook where I document problems that come up. That was very useful particularly in First class because I was able to spot children with phonetic difficulties, children who had you know specific difficulties, down to specifically the ea sound, the magic e, they didn't know the ou sound, so I would document all that and then blast with mini lessons during the day or throughout the week. (FIA/p.10)

> While the others were reading (silently), I would read with one child, when they were reading it to themselves. That's the way it worked. I made notes as they were reading, drawing up a list of things which I brought up later. (MIC/p.2-3)

Teachers also worked on teaching children a range of word-attack strategies to use when they came to a word they did not know and encouraged children to use them in guided and independent sessions. Some of them used the strategy glove (McLaughlin, 2003) or the toolkit (Collins, 2004) as a mechanism for teaching children how to respond when they were trying to decode an unknown word. The emphasis was on teaching children to use a number of sources of information and to crosscheck with their phoneme-grapheme knowledge (Clay, 1993; Fountas & Pinnell, 1996; Calkins, 2001; Collins, 2004). Children were taught to work systematically through their strategies to solve a word and the glove served as a visual aid to remind them of what they could do (see Figure 9.2).

Figure 9.2 Strategy glove

Learning support teachers also worked on these with the groups of children when they withdrew them. Teachers reported that some children had a great grasp of the strategies while others still needed lots more explicit modelling of how to use the strategies:

> That's a great image to have in your head the toolbox. I love that one. Yeah, they seem to be telling themselves what else is in my toolbox. Even when they've used everything in their toolbox though, sometimes it is the persistence that is lacking in them...(MID/p.32)

> They have loads of strategies now, they definitely have...they've kinda got the whole idea of the multi-approach I think, so that they have gotten a lot from it really. It's interesting. Their attitude to approaching it and to literacy in general is totally different to kids who haven't done the programme I find....They have a go. They are much more confident approaching it, they get it. (MIA/p.8)

On the days that the SET team were in the classroom, the timing of the guided reading sessions created some challenges for teachers, as they were trying to accomplish the complex tasks described above within a very tight timeframe:

> It was impossible to achieve everything we thought we'd achieve in the lesson. You couldn't possibly do reading, running records, and you know get some sense of where they are in the book and some kind of teaching points, there is no way you could do that. (MIA/p.2)

It is clear from the exchanges above that teachers were very much attuned to the needs of the children and were noticing when children needed an extra challenge or when their needs were more likely to be met in a different grouping. They had moved to closely observing, documenting and responding to children's instructional needs – again these are practices associated with exemplary literacy programmes (Taylor et al., 1999; Pressley et al., 1998; Au, Raphael & Mooney, 2007). While the pace was frenetic and there was a lot happening in classrooms during these sessions particularly when the learning support teachers were working in the room, it is likely teachers would became more familiar with the teaching routines of guided reading over time, which might ultimately lead to smoother lessons.

9.3.2 Guided reading in year two

As children became more fluent at reading and progressed to the higher levels of text and from there to novels and more difficult non-fiction texts, there was a concurrent shift in instructional emphases in the guided reading (see Table 9.2 at the start of this

chapter and chapter eight for changes and professional development offered in this period). As noted earlier, the SET team continued to come into the classroom to address specific needs as the following exchange illustrates:

> R: So what does a typical reading workshop look like in your class?
> T: Well it depends when you come in! At the moment we're doing non-fiction. There is a certain set-up where we're working in a very structured way on strategies with non-fiction. But the typical reading workshop would be three groups with an adult at each group, an SNA and two teachers. The SNA doing reinforcement work that we have structured and two teachers working either on strategies or very specific things like vocabulary development. In the last month non-fiction bringing in the four strategies for reciprocal teaching
> R: Right so when they were moving and they were getting different areas, what kind of things were you targeting in those groups?
> T: It depended, it was either a thematic thing or vocabulary that we were doing with every group or then as different difficulties emerged like the weaker group needed particular reinforcement of the synthetic phonic programme so we would do that then with those, say most of the time and a little bit of vocabulary development so it depended. It usually changed a lot really. (FIA/p.2)

Again, having the learning support team in-class to teach specific skills was acknowledged by teachers as being critical, as it contributed hugely to the children's particular needs being met. After Easter, rather than continuing to rotate activities within the classroom, teachers decided to try out 30-minute guided reading sessions and stayed with the same group for the duration. Again this proved beneficial with teachers reporting that it enabled them to really get to know a group of children well and to teach to their particular needs over the three days. In addition, it meant children were hearing the same strategies from different teachers, which led to interesting exchanges in classes on days when the whole class worked together. Teachers reported having conversations with each other about how the strategy work was progressing with different kinds of children.

Comprehension instruction through a transactional strategies approach

Teachers adopted the Fielding & Pearson (1994) framework for comprehension strategy instruction (see chapter four for an overview of this approach), which involved the following five steps: explain, demonstrate, guided practice, independent practice and reflection. Teachers liked teaching the strategy work in this manner and

all worked through the first four steps in particular and some worked also on the final step of reflection:

> R: So you liked doing the strategy work?
> T: Yeah. I think you have to do the strategy work because it helps, you are more focused in your head, what you are doing and then just following that Pearson and Fielding model: explain the strategy, demonstrate the strategy. And it's very important to do the independent work as well but I think if you do all those five steps, there is a great chance of the child actually absorbing the strategy and being able to use it independently then. (FIB/p2-3)

When introducing the strategy, teachers were encouraged to do so in an explicit manner and in a way that would help children see the purpose of why they were learning the particular strategy. Some teachers had demonstrated or modelled in lessons before the study but not in quite so explicit a manner. Verbalising their 'invisible-in-the-head processes' (Clay, 1993) and making a particular strategy transparent for children through a think-aloud was a new element for teachers and one which they felt was quite demanding to put into operation and required some practice in order to feel comfortable with:

> I find I am getting more confident in doing it, which is good. And personally you'd always be modelling and demonstrating, but not in so much of the, you know, when you were talking about the think alouds, I wouldn't be as familiar with doing that... That doesn't come naturally to me. So I didn't want it to sound false. I was trying to get it to... until I felt comfy with it. Then it would sound, you know. (FIC/p.21)

Following the demonstration, teachers asked children to verbalise what they had seen the teacher do, thus bringing to the surface key aspects of how to do the strategy and promoting active engagement during the think-aloud (Calkins, 2003). Children were then scaffolded in the use of the strategy through a guided practice activity which was accomplished in different ways in different classes as observed on different occasions e.g. in some cases a big book was used for the demonstration and children were then scaffolded by working through the rest of the book under the teacher's guidance, usually in pairs (Obs/B3[4]); another teacher partnered children according to mixed ability and chose different texts that would be readable between both children (Obs/D3); a third teacher used the same text for all children (Obs/C3) while the

[4] Obs1: Writing Workshop: December First class; Obs2: Reading Workshop: December Second class; Obs3: Reciprocal Teaching June Second Class; ABCD= teacher codes.

fourth used various photocopied extracts from a picture book for mixed ability partners (Obs/A2). Choosing the right text for the strategy was key as it was important that children were interested in it and also that the text was useful for teaching the strategy (Duke & Pearson, 2002). It was important that texts chosen for practice were not frustrational so children could concentrate on trying out the strategy rather than struggling with the words (McLaughlin, 2003; Duke & Pearson, 2002). Teachers were seen to circulate around the room, conferring with children and coaching and scaffolding children's needs as necessary (Obs3). It is the act of coaching that sets the most effective teachers apart from their more typical peers (IRA, 2000; Allington, 2002, Pressley et al. 2001). As one teacher observed:

> Although you are demonstrating it and doing it, sometimes all the links don't come together. So you need time to see them on their own and see what they can do and also to go in with them again, scaffold them again and see where the gaps are and try to fill that up then. (FIB/p.3)

Finally, the children worked independently on a task. Again teachers were careful to ensure that the resources were suitable and of interest to the children and in one case the teacher gave children a choice of texts:

> When I'm taking a strategy like that I just find the resources that I'm going to use and see what ones are relevant for what I want them to get out of it. I found with the summarising, like I couldn't do anything until I thought about what I wanted them to discover by the end of it. (FID/p.6)

> They all got picture books...because firstly, there's less text in them, the stories are shorter so they could read the story pretty quickly....So I went around and I kind of tried to gear the book then towards their ability, but at the same time I had a kind of a choice....I had about maybe twelve titles...think what would you be interested in and they were kind of more invested in it when they had the choice in it. Plus I kind of helped them you know selecting the right book. So I asked them what did they think about selecting their own book at the end and they said oh yeah we liked picking our own book, we get a choice. (FIB/p.4)

A key part of transactional strategy instruction that distinguishes it from direct instruction alone is the premium put on the dialogue between teachers and children and between children themselves as they engage in their partner or small group work (Pressley et al., 1992). Teachers worked hard to promote academic dialogue

throughout these lessons, which has also been found to be a characteristic of effective classrooms (Lipson et al., 2004; Knapp, 1995) (see chapter 10 for further comment on this aspect and the impact it had on the children).

Use of formative assessment

Observations and interviews with teachers illustrated that teachers used the conferences for formative assessment purposes to see how deeply the children understood how to use the strategy while working in pairs or independently. It helped them to see that there were different levels of understanding amongst children. They did not take for granted that because they had taught it once that all children understood. There was also evidence that teachers used the information gained from these conversations with children to plan further lessons, as is clearly illustrated in the following exchange:

> R: So when you've given them some pair work or activity to do, what kind of assessment do you use or how do you keep track of them?
>
> T: Well I suppose just informal assessment just going around and seeing what the children are doing. Like what I was doing (in Obs/B3), see was clarifying working in their brain when I was gone, was it still activating. So, just going around and seeing what children needed help and just sitting down with them and watching them: "oh show me what you're doing at the moment, oh I see you've written down that, how did you clarify that now?" and they'd tell me. If I found they sounded a bit dodgy I'd stay. If I didn't exactly know what they were saying I'd spend a few minutes with them. I'd go around to every child and see how they were doing and maybe write down, write down which children weren't able to do what and then maybe try and get them in another lesson down the road
>
> R: So what kind of information do you document?
>
> T: I suppose the strategies like say what children are able to get what strategies, what children may seem to get it in the whole group but then when you actually get down to it they haven't got it and that can easily happen. You think oh they have it now, but actually when you take it a bit deeper they haven't, they mightn't have gotten it at all. (FIB/p.32)

As Allington (2002) points out, what separates the most accomplished teachers from their more typical peers is the trouble they go to to ensure that children apply their strategies independently, as in the example above. He suggests that too much direct instruction 'robs' children of the chance to apply strategies on their own. In this model there is a 'gradual release of responsibility' to the student (Pearson & Gallagher, 1983), thus ensuring they have ample opportunity to apply strategies independently but not before they have had sufficient support. Another strength of

this gradual release of responsibility model is that all children, regardless of ability, can participate equally in this thinking and higher-level comprehension work, if the texts have been chosen well and if the partners are well matched. This gives lower-achievers equal access to higher-level thinking skills, which is in contrast to the kind of instruction they often receive. Allington's early research (1983) has shown that children who struggle with reading receive qualitatively different instruction from their more able peers e.g. they are given a slower pace of instruction and more focus on lower-level skills such as words, letters, and sounds rather than on the higher-level processes. Indeed, Knapp's study (1995) showed that children in high-poverty areas often receive similar instruction. Pressley's (2002) review of metacognitive approaches to reading comprehension suggests that a transactional approach such as this positively affects reading in a myriad of ways.

Teachers also audio-taped a portion of their lessons using a digital recorder. Three of the teachers reported listening back to the recording both to reflect on their own teaching and to pick up on assessment information that they might not have documented:

> If we could have one of these [pointed to the digital recorder] every day it would be great if you were going back.... So I found it very useful to pick up the things that I wouldn't have written down on paper you know. (FID/p.29)

One of these teachers explained that listening back to the recording really helped her to refine her teaching:

> Hearing your voice... hearing how you say things and how you... even hearing my own instructions. I went God I'm really going to have to pinpoint slowing down and making it much clearer... it just makes you reflect on, right how are they hearing me and how can I change that and how can I help that... (FIC/p.54)

In the extracts above we can see evidence of teachers as truly 'reflective practitioners' (Schon, 1987) who went to considerable lengths to plan purposeful lessons that were tailored to the specific needs of children, who sought out resources that would enhance a lesson and ensured that the pace of the lesson and the activities were suitably stimulating and challenging.

Role of metacognition

As mentioned above, not every teacher put a heavy emphasis on the three levels of metacognition (declarative, procedural and conditional) as outlined by Paris et al. (1995, see chapter four) in a lesson and some made more use of it in writing workshop (see below) than they did in the reading workshop. Teachers were of the opinion that it was a complex skill to teach children and that different children responded to it in different ways. But it is also clear from the following exchange that the teacher understood it was a key aspect of learning and perhaps more needed to be done to utilise it in lessons:

> R: Metacognition, do you think that is an important concept for the kids?
> T: Metacognition, I do. That would have been a new thing for us to reflect on. How well it goes in? Maybe I just didn't do enough of it? And funny it's a big part of my own learning style, as I always need to know why I'm doing something, it's an absolute essential concept to understand. I learn much more easily that way, myself. So I would always be thinking of the purpose of something or why am I doing this. But I think it is important for them to know. I'd say it did help them, but there again I'd see that some of the weak kids they're still not quite grasping that, do you know? Again but they're quite sophisticated forms of thinking, to reflect back and think why you're doing and what you're doing.
> R: They are aren't they?
> T: The purpose of it and some of them are struggling so much just actually doing it. They were kind of worn out and saying "why are we doing" and it was like "oh God it's not enough we're doing it" you know that kind of way? ....Kids that are still a little bit foggy in trying to cope with all the skills attached to reading....Yeah in one way it gives them a break from that and you get to sit back and just reflect but I'd have to say from my own point of view I would need to do that more with them. (FIA/p.40/41)

In contrast, another teacher worked consistently on this aspect of the model during the reading workshop and, while she found it challenging initially and questioned whether children could actually engage at this level, she felt the benefits to the children were worth the effort expended teaching them to reflect. This teacher made a number of charts with prompts for the children (drawing on McLaughlin, 2003) to scaffold their conversation. This helped them greatly to have the language to use to express their reflections (Figures 9.3-9.6).

> The children have to know what they know or else do they really know anything? Cause if they don't even have it verbally, what's going on mentally you don't know. You need to find out what's going on mentally and the only way you can do that is by metacognition. What have you learned? Well I learned this, so at least you know something is going on

up there. Like you could be saying oh yes, yes I understand all that but they have to be able to verbalise that themselves and you want to ask them their opinion as well. Like what strategies did you find the easiest and why? What did you find the hardest and why? Or the whole thing is why even bother with the strategies, seems like a lot of work to me, why are we doing it? They need to know why they're doing it as well so it can have a purpose...it's a good way to end the lessons if you're doing a strategy. It's a natural kind of end to it and it's good for you as well to take down what they said, what do you need to work on more, it gets the next lesson going as well. (FIB/p.52-53)

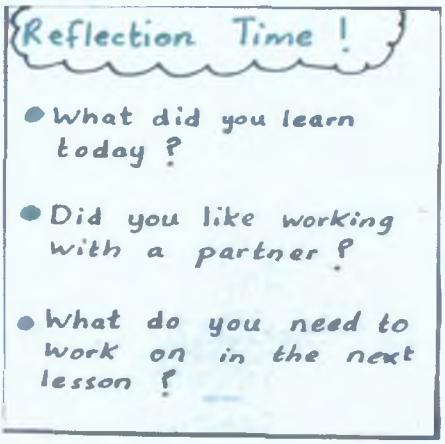


Figure 9.3 Reflection questions for partner work

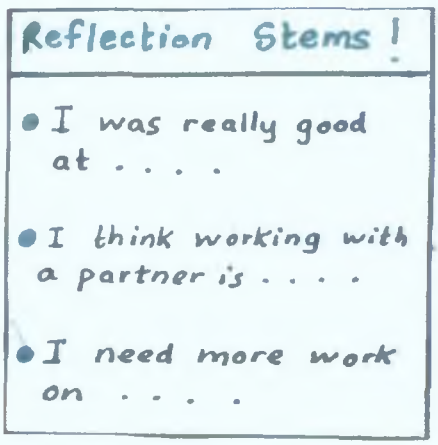


Figure 9.4 Reflection stems for partner work

Figure 9.5 Reflection questions for individual work

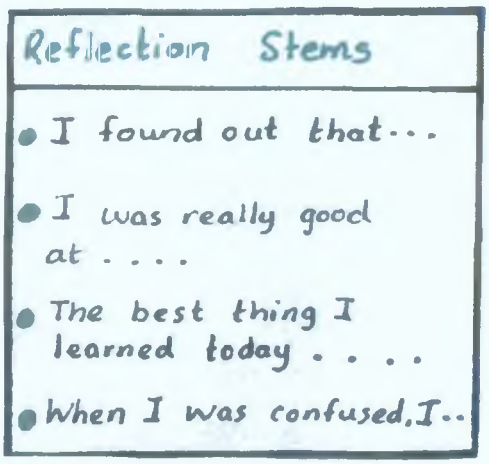


Figure 9.6 Reflection stems for individual work

This teacher's rationale for focusing on the metacognitive aspect of learning links very well with the views of Hoyt and Ames (1997, cited in McLaughlin, 2003, p.25): 'Self-reflection offers students an opportunity to be actively involved in internal conversations while offering teachers an insider's view of the learning and the

student's perception of self as learner'. Just as teachers' think-alouds gave children insights into the thinking processes that good readers use, the reflective element of the lesson gave teachers an insight into children's thinking processes. It also helped children to make explicit the new learning that they had engaged in, during the lesson and to know what they know. Engaging in dialogue with children about strategies facilitates them in becoming self-regulated strategy users, which as Pressley (2002) argues, is at the heart of strategy instruction. There was evidence that children were indeed choosing to activate strategies in their independent reading (see chapter 10)

Fluency

Fluency work was built into the reading sessions and into ongoing work during the day. Teachers worked on having the children pay attention to punctuation, phrasing and to reading with expression. While it was a focus of instruction in year one and year two, it was emphasised more in year two as teachers enlisted the help of the parents. Drawing upon the work of researchers outlined in chapters four and eight (Rasinski, 2004; Osborn, Lehr & Hiebert, 2003; Mandel-Morrow, Kuhn & Schwanenflugel, 2006), they explained the techniques of choral reading, echo reading and partner reading during parent teacher meetings. Parents were very supportive of the initiative and took on a mentoring role. Some parents commented on children's oral reading ability during the focus group interviews as in the following interaction:

P1: She actually reads her older sister asleep at night you would actually think you were listening to the telly
P2. Yeah they are telling the story as they are reading
P3: It's not just like years ago when we were reading it
P1: Yeah their expression
P2: They put emotion in it. (GIP1/p.1)

Two teachers remarked that it was an aspect that was missing from the reciprocal teaching routine and that they had included it at a different time of the day. One of the teachers encouraged children to listen to each other as they read aloud and to offer each other feedback on their oral reading:

> Yes, that is one thing that is missing from the reciprocal so I kind of had to do that, put on the voices. And as well, when they are doing that in front of everybody, they do it with a lot more effort and the rest of the

> kids would say 'oh that you could have done it this way', 'you could have sounded it that way', you know, they are popping up their own views, so it's good to have that in as well. (FIB/p.7)

In another class, the teacher sometimes modelled reading with expression and sometimes did not and children were quick to tell her that she could do better! Teachers planned to involve parents even more in the following year by bringing them in to visit and having the children model the fluency techniques for them. Towards the end of year two, one teacher took responsibility for developing a parent-friendly manual for use in that initiative.

9.3.3 Word work

In the study an eclectic approach was taken to word work in line with the research base. The NRP (2000) and Torgerson at al's (2006) systematic review of the research on phonics teaching did not find in favour of any one phonic method or conclude one method was superior to another. Therefore, rather than relying on either synthetic or analytic phonics, both approaches were used in this study to help children acquire the alphabetic principle. What the research does say is that a structured systematic approach is more successful than an incidental or 'hit and miss' approach (Cunningham & Cunningham 2002) and that it has a significant impact on spelling and word identification skills (NRP, 2000). Bussis (1985, cited in Hall, 2006) has suggested the brain is a unique pattern detector so teaching children to notice patterns and use that information to decode and encode makes sense. Cunningham and Hall's (1992, 1994) multi-level making and breaking approach was used two days a week (see chapter four). This ensured children were active throughout, thinking and physically making new words (with individual sets of magnetic letters and individual magnetic white boards) and investigating how to make a new word by changing a given letter and replacing it with a new one, building from simple two letter words to four and five letter words e.g 'Can you change one letter and make trim say tram?' Children often worked on this in pairs and then helped the teacher to categorise all of the words into their rime patterns and to figure out the secret word by using all of the letters on their magnetic board for that day. Cunningham and Cunningham (2002)

suggest that this kind of activity in phonics helps children to achieve cognitive clarity.

The school was in the process of evaluating its approach to phonics and was considering adopting a popular synthetic programme. While awaiting the outcome of that decision, the group of teachers involved in the study undertook to use a synthetic approach using a published programme with which the researcher was familiar. Teachers christened it the TISP programme after the first 4 letters taught in the programme. Three days a week then, the teachers used a multi-sensory synthetic approach which built from the simple to the complex and taught children to blend letters and later syllables to form words. Lessons were brisk and brief (approx. 20min) as recommended in the literature (Lewis & Ellis, 2006) and involved reading words with a given set of letters and then segmenting words with the same letters and writing what they heard. Thus, it helped children to make the important connection that blending and segmenting were two reversible processes, and, it also helped to address the weaknesses identified in baseline testing (see chapter six: MIST results). Teaching the code to children provides them with a powerful 'self-teaching device' (Stuart, 2006; Share, 1995) as they can unlock unknown words with the rules that they have been taught, helping them be independent readers and writers. There was much evidence that children used these strategies in reading and writing from both the children's and teachers' interviews (see chapter 10).

As Dombey (2006) reminds us, the English language has a "deep" or "opaque" orthography and the many influences (Latin, Greek, French) on its development have contributed to the irregularities that often make learning to read difficult. She points out that there are many words that children need to learn to read and spell accurately for fluent reading and writing. Ten to fifteen minutes were given daily in year one to the learning of sight vocabulary and teachers used the Rhymes and Jingles contained in Iversen, (1997) and children's writing to contextualise this work. Again, it was done in a multi-sensory manner and children were taught to read, write and spell the Dolch high-frequency words. They were also taught to use morphological and visual cues as the words they were reading became more complex. In addition, teachers made an alphabetised word wall (Fountas & Pinnell, 1996) and, as sight words were mastered, they were added to it. Also as the children were involved in a writing workshop the words were immediately relevant and were

reinforced each day. Teachers reported that this was a successful approach as most children had a well-developed sight vocabulary at the end of year one (see chapter 11 for pre and post test results for sight vocabulary).

There were contrasting views on the TISP programme with one teacher finding it a dry way to teach phonics, one who particularly liked it and found it easy to teach and two who said they would require more support in implementing it the next time round. It is worth noting that in the classroom of the teacher who implemented it carefully and often, the children had significantly higher scores on spelling than the children in the classes of those who required more support (this was the case at both times of testing in year two; see chapter 11). In addition, the standard deviation on the standardised test of reading achievement narrowed in this classroom indicating that the gap between children of higher and lower achievement had narrowed rather than increased (see chapter 11). It is also noteworthy that the NRP (2000) found significant increases in reading achievement for children in disadvantaged settings who had received synthetic phonics instruction. Further investigation of the relationship of the synthetic programme to these results would be warranted in the future, to establish if there was a direct link between them. It is interesting also that the teacher who found TISP to be dry also reported that it was the one aspect of the literacy programme that children had found the most difficult

> I have to say with my own particular group, and I think it's to do with the group, they were least impressed with the TISP Programme and that was a weak area for them, which might have been why they weren't into it, do you know? But they did sort of improve after a while but it just depends on a particular grouping (FIAp.2)

One of the teachers requesting extra support in the TISP felt that her lessons were not pacy enough and that she was spending too much time on it and the other teacher found the manual difficult to understand initially. This is important to note as the research indicates that lessons need to be brisk, short and interactive (Lewis & Ellis, 2006) and this would need to be addressed in the future. Three of the teachers found the analytic approach using the making and breaking techniques (Cunningham, 1994) easier to implement than the synthetic approach and reported that children also found it easier and more enjoyable. However, one teacher reported that it was more time

consuming to organise than the TISP and that there were not enough magnetic letters for the more difficult words containing several of the same letters.

> The breaking and building words they seem to have that very easily now. That never seemed to be that much of problem I think maybe it was the tactile approach and the whole thing. I find when I did those lessons I never encountered anyone that couldn't do any of those things so maybe I should just go up into something more difficult but you are limited then with the letters. (MIA/p.10)

The teacher who did a lot of the TISP work liked the simplicity of it, its predictable routine and structure, and she felt that there was little forward planning needed for it:

> It is actually very good and very simple the approach that you've taught us. The different steps, showing the cards without the picture there is no brainwork there. You know what you're at and you have the book there, so it's quite teacher friendly as well.... about twenty minutes on the word work fill up the TISP sheet. You definitely need to do the TISP work cause it helps everything else...I think that's the great thing about the TISP, is that it starts very low, but it's quite difficult, challenging work towards the end of it. (FIBp.27/28)

In all of the literature on the exemplary teachers of literacy reviewed in chapter three (The CIERA studies, Taylor et al., 1999, 2001, 2003; The Vermont studies: Lipson et al. 2002, 2004; the Pressley et al. studies: 1997, 2001, 2002; Allington, 2002; The UK studies: Wray, et al., 2002; Topping et al., 2005) teachers provided discrete time for the teaching of word work outside of the context of the reading and writing workshop. However, what separated the exemplary teachers from their more ordinary colleagues were the lengths they went to ensure that children had opportunities to use their newly acquired skills immediately or very soon after in authentic reading and writing contexts such as shared, guided, and independent reading and writing. Word work was embedded within a balanced literacy framework and seen as a means to an end. Thus, most children clearly saw the link between what they were learning and its purpose in reading and writing. The ultimate goal of word work is to help children to be independent learners and to give them the strategies that they can use to decode or encode words while reading and writing independently. Teachers ensured that the word work was applied within the reading and writing workshops and the formative assessment that they were engaging in

helped them notice when children could and could not apply what they had learned and when more reinforcement was needed:

> The weaker group, the problem is that you can do the TISP and you can do the word attack but it's the application in the book. You have to keep doing it through the book to make them get the link so it is at the reading time that you need that extra time. (CL7A)

Teachers steadily 'upped the ante' (Pressley et al., 2001) over time holding children accountable for application of the strategies they were learning in reading and writing workshops.

All teachers recognised that the structured systematic approach to phonics had helped children unlock many words independently and, as outlined earlier and in chapter 11, it had a significant impact on their spelling. However, phonic skills are 'constrained skills' (Paris, 2005) and once mastered contribute little to further reading development, while the 'unconstrained skills' of vocabulary and comprehension become more important in subsequent development. As some children in the study mastered phonics and achieved at high levels on phonics tests (see chapter 11), it became apparent that there was a need for a much stronger focus on developing their vocabulary. Similarly, there were some children who could decode a difficult word but were often not able to understand it and then there were children with excellent reasoning and good vocabularies who, when they were given the tools to decode, could deduce the word as in the following example:

> ...the oral language is kind of like critical to the whole reading process because I've got children now like XXXX for instance. She'd be very good at phonics on the TISP programme but because the language isn't there, when she meets a word she doesn't know that's when the process stops for her. While I have the opposite then, I have XXXX whose phonics wouldn't be so good but he has the language but because his language is so good when he has a little bit of the sound and he kind of thinks, he is able to think critically so he has a bit of the sound, he knows what it could be. He'd say what could this be, has a lot of kind of information in his head he can lean on so he usually ends up getting, moving forward. So that's what I have noticed if you don't have the language really even if you have all the sounding out abilities in the world (FIB/p.14).

Making discoveries like this led teachers to prioritise the language work alongside the phonics and to extend explicit teaching in year two of the programme to vocabulary development. This included attention to the teaching of Tier two and three words (Beck et al., 2002) and the development of word consciousness (Graves & Watts-Taffe, 2002) through a range of vocabulary teaching strategies such as those outlined by Blachowicz, Fisher & Ogle, 2006; Blachowicz & Obrochta, 2005). Again this work was embedded in the texts the children were reading and they were encouraged to use them in their composition of texts. The wide reading that children were exposed to once the class reader had been dispensed with also helped their vocabulary to develop. The emphasis put on the clarifying strategy in Reciprocal Teaching (Oczkus, 2003) focused on developing curiosity in words and children were encouraged to share new words and phrases with the class:

> They were doing something about koalas there the other day and they were talking about predators and prey. You know, words they'd have come across in so many books where like, that would never have come up unless they were doing so much. (FIC/p.15)

As a result of the focus put on finding words and understanding them children themselves began to closely monitor their reading and were aware that understanding the words was critical to understanding the story:

> If you read a word and you don't understand it you won't want to read the rest of the story if you think its boring, but it's not getting boring, you just think its boring because you don't know the word or if you don't know what one part means you won't know the rest. (Sarah/FI/p.6)

Parents also reported that they had noticed children's curiosity about words and that they liked showing off their new word knowledge, especially the 'big' words:

> P1: They have words in the back of their copy like big words and what they meant.... I was like how does she know that and how does she keep it all in. And this means this and investigate you have to go looking for things and finding things.
> R: They like the big words don't they?
> P1: Yeah because I think it's because they are bigger than what they usually say
> P2: I think when they are doing the sentences, like he asks me whatever word to put into the sentence, but I would be waiting for him to say well how do you spell this and it's big words as well and you'd be saying how do they know that and at their age as well (GIP1/p.2)

Vocabulary development was an area that teachers became increasingly interested in and identified as an aspect that they would like to further investigate. One opted to take it on as a project for diploma work (see chapter 10).

9.3.4 Writing development in year one

Prior to the study, the teaching of writing as a process was not a regular feature of the classroom instructional programme (chapter six) and this is not an unusual finding as research on curriculum implementation in Ireland (DES, 2005c, 2002) suggests that it is in evidence in less than half of the schools in those studies. The implementation of a writing workshop on a daily basis was a new concept for teachers but one with which they were very willing to engage and it was the first aspect of instruction that teachers worked on within the change process. The range of supports and professional development offered to them in relation to the teaching of writing are outlined in chapter eight.

There were two reasons for introducing writing as the first element of change. Firstly, the researcher was aware of the powerful influence that a writing workshop can have on children's motivation for literacy in general, not just writing, from her own background and experience of implementing writing workshops with children. Secondly, as indicated by children's scores on the MIST (Hannavy, 1993), children were having difficulty with the skills of blending and segmenting and, given that there is ample research to suggest that the skill of segmenting develops prior to that of blending (Frith, 1985; Liberman, 1971) and that writing is an important approach to beginning reading (Chomsky, 1979, Read, 1979, Clarke, cited in Adams, 1990), the introduction of a writing workshop was seen as a viable way to simultaneously engage children and develop their skills.

Nurturing the writer

While many children were at a semi-phonetic (Gentry, 1982) or partial-alphabetic (Ehri, 1995) stage of development, it was most important to convey to them that writing was about communication, drawing upon their own unique experiences and

discovering their own 'voice'. Graves (1994) has suggested that voice is the 'imprint of the self on the writing' while Andrews (1989, cited in Grainger et al., 2005) says 'like a fingerprint [voice] reveals identity.' Teaching children to look inward and to discover that they had things to say were critical aspects of the initial process. Children also needed to gain confidence and to see themselves as 'potential doers' of the activity (Cambourne, 1995). Teachers were made aware that the two conditions of time and choice (Graves, 1994) were vital so that children could engage in 'extended writing journeys, in which they can take risks and take their time, letting ideas emerge, live, be rejected or selected as they travel' (Grainger et al., 2005, p.23). Once children realised that they would be writing daily and that their choices would be taken seriously, they entered into a 'constant state of composition' (Graves, 1994), pondering their selection of topic both inside and outside of school, as can be seen from the comments made in the final interviews:

> When I'm out I just play. I want to get ideas for my writing workshop, so I just ask my friend some questions about her family...(Teresa/FI/p.1)

> 'I'd think which one was the best. Like which one is really important. Like if I got my dog, if I was going to the shop or if like some morning if my sister wasn't well cause she was in hospital, I'd write about my sister. That's the most important thing.' (Mary/FI/p.26).

> I think deep in my brain...I think all the while during my life. When I just get the best one, the best one for my story, I'll go yeah, I'll use that (Fergus/FI/p.1)

A predictable daily structure was put in place which included a mini-lesson to begin with, followed by conferencing with children while they were writing and a concluding share session (Graves, 1994; Calkins, 2003). Teachers put a premium on developing children's confidence in themselves, and focused primarily on helping them put their thoughts down on paper in the early stages (between October and January, First class) modelling each step of the processes involved. Calkins' (2003) multi-level approach was utilised at the outset. For example, teachers modelled by thinking aloud how they would go about selecting one topic over another for writing, then drawing their topic on paper thinking aloud, adding details to the drawing and justifying why they did so. This was followed by labelling the different elements of

their drawing, again by thinking aloud and illustrating to children how to stretch out words and record the sounds by matching them to letters and finally, concluding by writing a couple of sentences to go with their picture. In this way, the emphasis was put on the communicative aspect of writing; pupils learned that it was about capturing one's thoughts on paper, not on how accurately you spelled words. Thus, children whose phoneme-grapheme knowledge was not well established could draw a detailed picture and describe it in the share session. Those who were more advanced could also label and, in the case of the most advanced children, could write connected text. One teacher, who had initially demonstrated exciting stories for children, stopped when she noticed that it made some children feel that they could not achieve that standard:

> ...I think then I started making the stories a little more ordinary because some of them were thinking 'Oh God, I can't think of an exciting story like that'. So I started making them like, just stories like how I was cooking the dinner or something, or how I was talking about my dog...(IIB/p.13).

Children sat quietly on a carpet area at the back of the room while the teacher was thinking aloud and were asked to spy on her and articulate what they had seen her do. This active listening helped children to see the purpose of demonstrations and made concrete the lessons the teacher hoped they would take from the demonstrations. This was followed by an 'active engagement' (Calkins, 2003) process which first required children to think about how they would apply the strategy demonstrated and then to turn and talk to a partner to discuss their plans for the session. Much of the early work thus involved helping children verbalise their thoughts and put them on paper. Again, having children compose through invented spelling was new to teachers:

> I haven't really done the whole just letting them write whatever they like regularly and not worrying about spellings for a long time, you know, and the labelling. All that would be new to me. ...(IID/p.8)

Teachers learned a lot about children's stage of development by closely observing them as they wrote. During conferences, they focused on scaffolding children in moving from this semi-phonetic stage of writing towards the phonetic stage (Gentry, 1982). There were interesting conversations between teachers at meetings, as they

strove to understand the stage of development the children were at and support each other in learning how to approach extending the children's skills:

> TD: This girl XXXX, she literally writes one letter, she'll do some words and then she'll write 'I have a nanny and a --, you know she'll actually read it, but she won't register that there's only one letter there.
> TB: You can see that she's trying, she knows how to read that....
> TA: That just shows that she's hearing the initials....I have one or two that do that as well, XXXX I think he was writing about his cat that died. He was putting a letter for each one and it was making total sense to him. I found that once I got him to try and hear the last sound it works well, the first and the last, then I try the middle
> TB: Say for 'cat' they only have 'c' and you say /c/, "Does that sound like 'cat'? No. So you must have left out a few sounds there" (CL2/p.8).

Theoretical models of the writing process (Hayes-Flower, 1980) and adaptation of such models by Berninger & Swanson (1994) for beginning writers suggests that writers go through three major processes while writing (planning, translating and reviewing/evaluating) and that working memory is involved in all three of them. Working memory particularly affects young writers at the translating and evaluating stages as their word level skills are not yet automatic and require such effort that there is not a lot of capacity left to attend to the higher order messages of the writing such as the structure, word choice and overall message. The word study programme outlined in the earlier section helped children to move quickly towards a phonetic stage (stage 3, Gentry, 1982) of spelling in which almost all of the text could be read by an adult without the child beside them to decipher. Children no longer had to stretch out every word they wanted to write but rather had an instant sight vocabulary to draw upon and more automatic knowledge of phoneme-grapheme correspondences, freeing up their working memory, and making it easier to capture their thoughts on paper. Teachers also worked on helping children see that a lot of what they had to say in verbal rehearsal before writing and the detail in their pictures was not making its way onto the page for the reader and so began to help children to develop an awareness of audience and to also consider who might like to read their work, as in the following example:

> ...They couldn't get the idea until I said: "Look, here's Mary (SNA), she doesn't know anything about the birthday. Can you tell her? And it was only when I said that that she started to tell. Whereas if you don't do that they just say 'I went to the –."...But yet I found with the birthday theme,

> they had a lot of detail in the picture that they hadn't written about. (CL2/p.5)

An audience was provided daily for the work so the children were not just writing from themselves or the teacher but also had a response from their peers and for many children that was something they looked forward to. In some cases a whole class share session was used and in others teachers used writing partners. As Graves (1994) has suggested, the share session is a powerful motivator and it is the effect of seeing the reactions of one's peers to your words that furthers motivation and heightens one's self-esteem, as in the following examples:

> I think my Mam and my Dad would like it and so would my Teacher. Well I have a partner, XXXX, he always wants to look at mine. (Madeline/FI/p.43).

Sandra:	Sam always writes funny stories
R:	Does he? So you'd listen?
Sandra:	We usually start laughing during the middle of it (Sandra/FI/p6.)

Valuing expression over the mechanics of writing levelled the playing field for all children and those whose word level skills were less well developed learned that their teacher was most interested in what they had to say and not on how correct their piece was: 'For example XXXX who would be very kind of low ability, would be going to Resource; he has quite a creative flow and he's writing quite fluently (IIA/p.3). All teachers noticed the confidence this gave to children and it was commented on by the SET team: 'When they were doing the writing there was no fear of making mistakes, they could, they weren't told you have to spell everything correct you could just write' (SET2LSB/p.22.). As Bandura (1995, p.3) points out 'successes build a robust belief in one's personal efficacy. Failures undermine it, especially if failures occur before a sense of efficacy is firmly established'. Children had ample opportunity to build their confidence and experience success through the support structures of the workshop and the praise and encouragement they experienced daily. Parents had also noticed that children were more confident:

> Now when they are getting them to do their writing they are getting them to put their thoughts down rather than the spellings being so important. Well I think that has given them the confidence to do the writing because

> my eldest two were always terrified of doing the written homework in case they done it wrong. (GIP2/p.5)

After January of First class, when children were becoming more fluent and confident, teachers 'upped the ante' (Pressley et al., 2001) further and held children accountable for adding details to the writing, for correctly spelling words that were on display on the word wall and for putting in correct punctuation:

> The main thing was that they'd gather confidence and become fluent and just whatever they got into their head write. So they're solid enough in that now to take some kind of correction. So what I've been doing the last couple of weeks, the last few days, and kind of guiding Mary (S.N.A.) to do was....first of all to make sure that if there's any word that's spelt incorrectly to underline that and go back. And then the other thing would be to take two words that they use frequently and maybe get them to spell those at the back, just write it a few times.. As well as pointing out more attention to say spacing and capital letters, much more on structure and they're able to take it now. They're actually great. Whereas I think if that'd happened too soon. (IIA/p.2)

As children became more comfortable with writing teachers expanded the strategies for figuring out words e.g. they taught children to use the dictionary and how to use the 'try-out pad' so children did not learn to over-rely on the sound of a word but began to also use visual and morphemic strategies and as can be seen from the following (typical) extract, the children had internalised the range of strategies:

> You could use your tryout pad, or sound it across, and you can ask the Teacher for a little bit of help, or else you could think if there is the an A sound or a magic g cause there is always a vowel...(Noreen/FI/p.8)

Teachers reported that the children loved the process, the autonomy that it gave them and the success they experienced with it.

> They really love it, that whole relationship with, what I have inside me is on the page, that kind of personal relationship as well, it's given them so much, a place to do that, a structure to do that. I think the most valuable thing was without them realising it at a cognitive level they actually see the relationship to what you want to say, to speak, to write down and the point of the whole thing....(IIA/p.12)

In the second year of the study, as children's composing skills increased and they now had more mental capacity to focus on the further development of their writing ideas, teachers moved toward working on helping children further expand their writing.

9.3.5 Writing in year two

The focus in year two moved more to the development of expression in writing and encouraging children to write in a variety of genres. There was much integration between reading and writing and the comprehension strategies that children were experiencing in the reading workshop began to transfer to the writing workshop. In the reading workshop children were taught to notice new words and expressions in texts they were reading and to clarify the ones they did not understand. The strategy of visualising helped them think about how words they were reading made the images in their heads, which helped them visualise for writing. Vocabulary was also taught explicitly, whereby teachers taught a number of words directly each week and these were then displayed on charts around the room. Children were expected to incorporate the words they had learned in reading workshop into their writing. Children were taught to use description in their writing and shown that it was possible to have high quality writing no matter what the topic:

> ...even if you were going to Tesco, it's a bit exciting. You can have good language in any story. Even if it's going anywhere it's important to have the expressions there to have to kind of enrich the language. It won't be we went to Tesco we saw this, we saw you know, you want them to liven it up a bit (FIBp.19)

Focusing on noticing words in their reading also helped children to self-regulate and notice a word that was new to them, whereas before they may not have even realised they did not understand the word. In some classes, teachers made a big deal out of children's discoveries and celebrated them, which in turn served to further motivate children:

> XXXX said today, I learned a new word yesterday. 'Oh, what's that now?' 'Inedible something you cannot eat.' I said 'oh that's very

> interesting now, tell the class what you've learned'. She would be quite interested in language, alright so it's good, like they have a hunger for language now and they're aware of it (FIB/p.24)

In preparation for the work on introducing fiction, poetry and non-fiction writing to children, the school invested in a large supply of high quality literature such as sources recommended in the professional reading materials that teachers were using to guide their lessons (Calkins, 2003; Grainger et al., 2004). As many children were still writing personal narratives, they needed lots of scaffolding in moving out of their comfort zone and attempting new genres. Creating story mountains and story plates of familiar stories helped children to grasp the structure of stories and adopt them for their own writing (see end of chapter 11 for Linda's story):

> You think what the book is going to be called and then you think what people are going to be in it or is there going to be a dog in it or a haunted girl or a happy ending or maybe it doesn't work out in the end (Linda FI/p.14)

Teachers worked on helping children notice the features of good writing by having them study real authors and how they crafted a story by, for example, considering their lead, their characters, dialogue, the setting etc. There was also much evidence that they had internalised the language of stories and were transferring it to their own writing (see Figure 11.25 for Linda's haunted story above and a sample of her writing at the start of the study; see also samples of writing in chapter 11.) There was evidence from children's interviews that they had begun to take a critical evaluative stance to their writing, the third stage of Berninger and Swan's model (1994), but for most it was more so at the word and sentence level rather than at the discourse level. In final interviews children were asked if they ever revised their writing or looked back over it when they were done. As can be seen from the following examples, they considered their choice of words and were aware of their power

> R: Oh you use a thesaurus. What's a thesaurus?
> M: It's a big book with loads of words in it, like snapped, yelled, whispered, screamed, shouted, asked, roared, gasped, sighed and loads of different words you can just put in a story ... Like, I see can I see any like, big words that I can put in the story, make it an amazing book.' (Madeline FI/p.32-33)

This young writer went on to say 'Well I always see can I put something back into it... I add stuff in and then I read it over to see did I get anything wrong'. What is interesting about this is the fact that the spelling and punctuation were secondary to the story itself. There was much evidence that this little girl was thinking like a writer though if one examined her reading score on a standardised test of reading achievement she would be considered a lower achiever. She was focusing more on telling the story as well as she could. She spoke about writing from the point of view of her characters (which she often fictionalised from events in her life) and considered how she could communicate her character's feelings more clearly:

> I see can I do another part of it and I did cause I was only on two pages but then I said if this girl has something sad to talk about she can put it in this page. So I did three pages of the story. But it's about me... it's called the sadness of life....It's like me, it's like I have a memory of that, but I'm eight, that's seven so it's kind of different to this (MadelineFI/p.36-37).

The social context continued to be an important mediator for children and in some classes teachers actively promoted collaboration in writing at each of the three processes (planning, translating and evaluating stage: Berninger & Swanson, 1994) and were attuned to the personalities and needs of children, some of whom needed to be nurtured and coaxed along and others who just fed on the energy of collaborative creativity:

> It particularly helped the learning style which likes to think aloud and interact, those kids as well that need say like Seán for example that need to feel a point of connection before they engage in anything, that did a lot for him, that's what he needs to get going at all, you know. (FIA/p.12)

Teachers also used partner work for a peer revision and editing process which has been shown to be effective in the research (Younger et al., 2002). Teachers felt it helped open up possibilities and helped children to be more self-evaluative:

> Even editing then as pairs, like even if they read each other's work that helps and they're kind of saying, oh, and you know even though you don't want them to compare to theirs they obviously are, and at the same saying oh that would be a good expression for me or oh look what you could do. (FIBp.21)

One teacher, drawing on the work of Regie Routman (2004, 2002), promoted exploration of alternatives in a group format. Children were taught to listen carefully and encouraged to comment on the details and language they had heard the author use.

> Yeah they loved it absolutely. At the start they were sort of mimicking each other. Now they really listen. They can actually quote each other. They say 'oh I like the way you said this or I like the way you', they pick up details which is really good. (FIC/p.17)

Teachers tended toward using formative assessment more for assessing the quality of children's writing rather than for the lower mechanical skills of writing such as spelling, grammar and punctuation. All of the teachers reported examining the children's writing to see if the mini-lessons which focused on different aspects of writing such as developing characters, adding descriptive details and varying sentence structure, were transferring to the writing. Follow-up lessons were planned on foot of this assessment:

> For writing, like which children do I need to sit beside, which children aren't using any of the expressions which can happen as well. Even though they know them, you know, to know them and activate them and get them to use it, that's another step and even though you think, oh they know it now, they'll use it, sure that's a natural step but for some children it's not a natural step at all. (FIB/p.34)

While children's spelling skills had really developed from the concentration of word work done in other lessons and they were very capable of self-correcting many spellings, they had a lot more difficulty in applying punctuation correctly:

> I would assess their writing but not as much as I should have, do you know, look through the writing, and things like that. That I could have done more of because you can see how it is integrating. Some of them are still not putting in full stops, no matter what you say or do. I would do some mini lessons on that. (FIA/p.10)

Also, by not focusing more on these mechanical aspects, some children were at a disadvantage when the Criterion Scale was used to assess their writing at different points of the study, as advancing to the next level was contingent on children

achieving accurate control of full stops, commas and question marks as well as the higher level processes of writing. For example, in the final writing sample of one child who had achieved the highest score on the Drumcondra Sentence Reading Test (98th percentile), basic punctuation was not applied consistently. This is an interesting and surprising finding as it illustrates that some teachers valued expression and confidence in writing over correctness rather than attaching value to both aspects or indeed over-emphasising skills, as has traditionally been the case. One can clearly see from the extracts included in this section that teachers had viewed the writing workshop more as a forum for children to 'demonstrate their creativity, individuality, voice and verve' (Grainger et al., 2005. p.1) than as a forum for teaching mechanical skills. While the creativity and voice of the writer needs to be nurtured, a focus on process and product, at least for publication pieces, would be important to emphasise in the future. By the end of this study, many children were aware that writing was a creative personal act, as can be seen from the following exchange with the researcher after a real author had visited the children:

R Did he give you any hints for being a good writer?
D: He said you have to take your time and every piece of writing is a work of art.
R: Very good! So do you think that's true?
D: Yeah.
R: What does that mean?
D: It means like anything you write is special to you. Like it brings back memories. (FI/D/p.27)

Teachers observed a number of important changes in the children, which they linked to the kind of instruction they had received in the classroom and which they had not observed in children in years past. They also commented on the impact of the study on themselves. These are the foci of chapter 10.

10 PERCEPTIONS OF THE CHANGE PROCESS

This chapter is divided into three sections. The first section presents the changes that teachers perceived in the children during the study and is supported by the children's and parents' views communicated through interviews conducted throughout the study. The second section examines teacher perceptions of the change process on themselves while the last section presents teacher views on how the change process could be sustained and expanded throughout the school.

10.1 Teacher Perceptions of the Changes in Children

Teachers observed a number of important changes in the children, which they linked to the kind of instruction they had provided in the classroom and which they had not observed in children in years past. Guthrie and Anderson (1999, p.20) define engagement as 'the joint functioning of motivation, conceptual knowledge, strategies and social interaction during literacy activities'. Many of these features were at work in the classrooms involved in the study and are outlined in the next three sub-sections. While they are presented separately, in reality they are interconnected.

10.1.1 Higher levels of engagement in literacy

Guthrie & Anderson's work (1999) on cultivating engagement in literacy (see chapter four) highlights a number of key emphases in a literacy programme which when present can lead to high levels of engagement. These include a focus on conceptual learning alongside a focus on strategies, a classroom environment where meaning is socially constructed and supported through collaborative work where students' interests are capitalised upon and where choice and self-regulation are promoted. These elements were key features of the classrooms in the study and were built upon and strengthened with each change that was introduced in reading, writing and word work.

In the first individual interviews conducted with teachers in January of year one of the study, teachers reported that the children were most enthusiastic about the writing workshop. This may have been due to the freedom that was afforded children to write about their own experiences daily and the fact that teachers valued this aspect and helped children to write well about even the most mundane experiences. In the Knapp et al. study (1995, p.92) of highly-achieving disadvantaged schools, the most successful teachers provided regular time for extended writing and 'the key factor was the degree to which teachers communicated to students that their home lives – however different those lives might be – were a respected, welcomed and valuable part of the classroom discourse, both written and otherwise'. Other research has indicated that giving genuine control to children to direct their learning (Jeffrey & Woods, 1996, 2003; Calkins, 2003; Graves, 1994) has a positive impact on their motivation and creativity. An open environment also fosters creativity (Grainger, 2005). Teachers who provide this open environment understand that literacy is socially mediated and they actively encourage partnerships and collaboration between groups of children. Guthrie and Anderson (1999, p.36) suggest that 'when students can talk to each other about their writing, they learn an acute sense of audience and authorship'. In the following quote one can hear the energy in the child's voice and the sense that she has future goals for herself. This is a child who is involved in her writing and excited by it (see end of chapter 11 for a copy of this story):

> Sometimes me and Sue work together with writing and doing our own book... then putting them together and it will be a longer book and more interesting. And then after that me and Mary are going to do a book together called "The Haunted House" and "The Haunted Boy and Girl". (Linda/p.21).

Interviews with children revealed that many of them were choosing to write outside of school as well as in school. They reported writing stories, non-fiction, cards and letters. In the first extract we see a child who uses writing for a personal reason and in the second we see a social and competitive side as two friends sought to have their work proclaimed to be the best by a third friend. When that validation is not forthcoming they go off and use their green pens (teachers had given them for revision purposes) to work on improving their first efforts!

> I write princess stories and, last Christmas I writed my Mammy a story and I wrapped it up as a Christmas present. And I got her a bunch of flowers when she wasn't well and I writed her a story when she was in hospital. (Madeline/WI/p.5)

S: And sometimes I only do writing workshop at home
R: Do you?
S: Cause my friend Samantha goes in for 10 minutes and I go in for 10 minutes and we write a page out and then we knock for our friend Clara and she tells us which one is the best and she says the two of them and then we go in again and write more onto it with a green pen. (Cheryl/FI/p.16)

Children reported that they read their writing to their immediate families and also their extended families and clearly enjoyed the praise and affirmation that they received. Parents reported that they had noticed an increase in the volume of reading and writing that was occurring at home and one parent reported the following in relation to her son who had discovered the power of the written word:

P1: He is always writing, we have folders full of stuff
P2: He writes you letters
R: Would he!
P2: At night, a message: can we have a McDonalds and brings it down. Mam read that, messing and all! (GIP5/p.1)

The enthusiasm for writing was sustained throughout the project and teachers were of the opinion that even the children who had been reluctant to engage at the start had benefited hugely. As one teacher commented, the experience would stay with the children for life, regardless of what happened in the coming years:

> And the enthusiasm they have! That has stayed there as well, which was a surprise. There are lots of little things along the way that strike you, you know when you saw XXXX suddenly beginning to write out of being so resistant and XXXX so into where he wrote, we did poetry very briefly for about a week or two and what he wrote! I think they will benefit, for the rest of their lives regardless of how it goes. Cause all of them have come out with a sense that they are authors and if they never write anything again but hopefully that wouldn't happen but they have all those books and all that evidence and they have that sense that I can write. (FIA/p.56)

Teachers expressed similar sentiments in relation to reading. They were of the opinion that the wide availability of new books in a broad range of genres, the priority put on reading in the classroom and at home and in developing one's taste in

reading made a big difference to children's interest in reading. One teacher gave the example of a child (from a very challenging home background) who suddenly took off with reading and who had a powerful impact on his peers. Another teacher gave the example of a boy who was a capable reader at the outset but not very engaged and who suddenly switched on to both reading and writing:

> Sam again, another boy, I think his motivation for reading has just really soared. He's the one I keep thinking of with non-fiction. You know as soon as I started that, he just took off with it and he nearly carried the rest of them on and motivated them. Whatever he wanted the others said oh I want it and he just, the way he verbalised his enthusiasm for reading was great as well, he'd just say "I love reading" and every lesson that we finish whether they're allowed to get up or not he goes to the library and gets a book and he sits down quietly. (FID/p.39-40)

> Martin would have been a child, I was quite worried about through the thing of very good ability but not so happy about doing....He wasn't as motivated or he'd come in very tired and sort of groggy. He brought in recently a load of, cause we're going to the zoo, brought in a load of animal books you know to share with the others... his writing is so much more, you'll see a big change in his writing. It's like it just clicked into place for him. I don't know what it was, he just didn't seem that enthusiastic at the start but then by about I don't know was it midway through this year, he suddenly, maybe about January or February he suddenly clicked and he just he really took off. (FIC/p.34).

Still another teacher who promoted wide reading in the classroom reported that one child, again a boy, wanted to take home as many books as he saw some of the higher achievers taking home, even though he was not quite able to read them. He had a very supportive home environment and parents who read with him at night which had a very positive effect on him:

> ...but I'd say with someone like Patrick who is a weak reader, he was going at it from first of all competition. He wanted as many books as everybody else. But then he discovered, what happened with him was, his mother read a lot to him and then he actually began to forget about having the same book and began to look at books that he liked. So for him he actually got through an awful lot more material than he would have. (FIA/p.14)

Choice for pupils in choosing texts to read and in the academic tasks set during literacy time are characteristics of effective classrooms (Pressley, 2002; Lipson,

2004), and are linked to children's motivation for literacy. Teachers, as noted in chapter nine, used every opportunity to capitalise on children's interests and in the second year of the programme, when children had graduated from the levelled texts, teachers in some classrooms allowed children to choose the texts for guided reading sessions and also for strategy instruction, which was another major motivating factor. They worked on helping children notice the differences between fiction and non-fiction texts and to read a range of genres (see Figure 10.1). Children enjoyed the opportunity to pursue interests, work independently, and then present what they had been working on as in the following example:

> And the better group were using the 'I Wonder books'. We did a good bit around the non-fiction so they knew that they didn't have to follow the book from beginning to end you know. Whatever their interests were in the particular book we were doing, they were able to go straight to that by looking up the table of contents. They really enjoyed that, because I said that they didn't have to look up the same thing you know, they didn't have to be on the same page but then they'd have to share it at the end, what they discovered (FID/p.12-13)

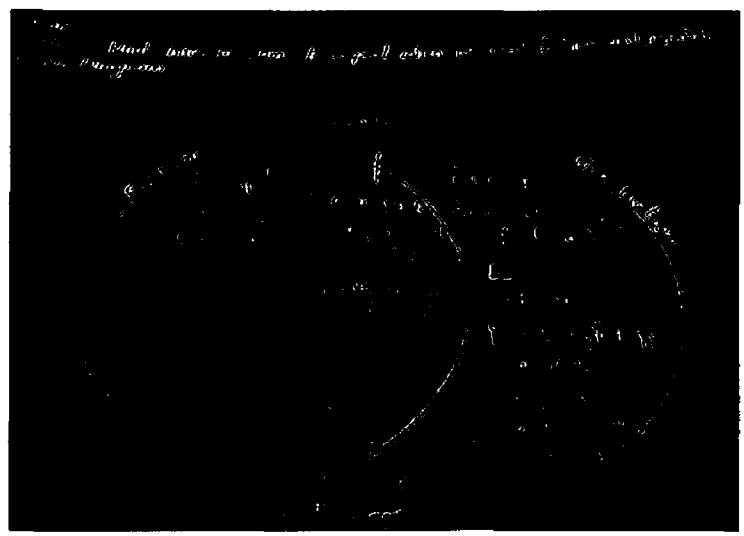


Figure 10.1 Chart illustrating the initial work children did comparing fiction and non-fiction books

One teacher whose class was slower to make progress (for reasons outlined in chapter seven) felt that the motivation and engagement she was observing was not reflected in the children's literacy scores on the standardised tests: 'It's hard to measure because I don't think, oh then again, I don't think the XXXX today is really going to measure what I can see, you know' (FID/p.36). This class did achieve

higher than expected gains that were statistically significant in the last three months of the second year of the study.

As with the writing, many children reported that they loved to read at home and did so every day. What was most striking in the interviews was the articulate manner in which they could outline their personal taste in reading distinguishing between fiction and non-fiction and could name their favourite authors. Even children who were still achieving below the 20th percentile on the DSRT were animated about reading (see last extract on this page). As in the classroom it became a social event on the outside too. It had an influence on family as well and some children reported reading novels and non-fiction with their parents and siblings:

> My friends, they bring their books out and we don't play we sit on my trampoline reading them and we read a page....we see can we solve out words. (Cheryl/FI/p.10)

> I'd read for about an hour....but when I am with my Mam I do read for two hours cause she does be getting into the book as well! (Mary/FI/p.9-10)

> I find I am learning as he's learning. It's actually broadened his outlook a little bit.... information things that you wouldn't even think about, say dinosaurs. (GIP6/p.2).

R: So what kinds of books do you like reading? What kind of stories?
M: Well, I like long stories that take about two or four days, that's what I like
R: Great, you like to get stuck into a book! Do you have a favourite story?
M: My favourite story is what's it called? I got it in the library the other day and I'm on chapter 10. I'm nearly done with it. It's called "Fairy Charm. I always read it in bed and then at 6 – 8, that's my reading time.
R: 6 – 8, would you read for that long? Two hours, yeah? (She nods her head.) Do you have a favourite author?
M: My favourite author is Roald Dahl.
R: Is it? What ones have you read of his?
M: "Charlie and the Chocolate Factory", "James And The Giant Peach", "Matilda", and the one, it's about the fox, you know the robbing fox
R: "Fantastic Mr Fox"
M: Yeah, and the one about the big magic hand, the finger
R: Oh, The Magic Finger. You've read loads of his. He's a great author isn't he?
M: And Harry Potter, I read all of his books. (Madeline/FI/p.6-7)

Parents too reported an increase in the volume of reading since the start of the project and that children were now asking for books when they went to the supermarket and even the toy store!

> P1: We were out in Smyth's (toy store) before Christmas and we were getting stuff and all for Christmas. He was looking at books. I was really surprised. He was like get these two books, Mam, we have these in school.
> P2: Well mine is into all these Egypt books and dinosaurs. We watch a lot of that, you know, the history channel, documentaries and she likes all of that. She likes her fairy tales as well. She went and bought an encyclopaedia it was only €5.00 but it was all about Egypt, all about years and years ago. She likes books like that.
> P3: Dylan is more likes art and all that sort of thing. He is mad about the drawing and that kind of thing because he goes for books that will teach him more and he'll go for more fictional things but he's kind of grabbing books! (GIP3/p.3
> P1: He is very interested in the planets, for a small little fella. I do be left looking at him sometimes! Where did he get that from? And he is able to tell me about how the moon and the earth align and what way it works. (GIP6/p.2)

As well as the volume in reading and the children asking for books parents noticed that the teaching of reading had changed, that the children were now more confident in reading and that they were reading more complex books than they had expected for their age. They also reported that the volume of reading had had a positive impact on other siblings, particularly younger ones:

> PI: I think that she is after coming on and my younger daughter, she is after coming on with her, with all the books....
> P2: He's speech problems but he's after coming on. He loves reading. He always has a book in his hand when you see him coming along
> P3: I think the way Dylan is after being taught is coming down onto Mark and he is robbing his books to read. The one that is in First class is trying to out do the one that's in Second class! (GIP2/p.4)

> He kind of reads the sports part in the back of the paper and last year he wouldn't even think of reading. (GIP4/p.1)

> He makes sure he finishes the whole book. I couldn't believe it, a book that size, my others, like the rest of them wouldn't be, you know...(GIP1/p.3)

Teachers also felt that the motivation and engagement was fuelled by the interactive approach taken to the word-level skill work of reading. For example, they cited the fun, multi-sensory approach taken to phonics and the use of concrete materials such

as the magnetic letters, magnetic whiteboards and markers to consolidate this knowledge. Novel approaches to the teaching of writing and the use of the overhead projector for modelling thinking processes in reading or writing engaged the children as did owning their own writing folder, writing pads and fancy pens. The use of paired co-operative work and the use of post-it notes to record their thinking as they were reading were also mentioned by teachers as initial motivators for children (see Figure 10.2 below for examples of the use of post-it notes in lessons.

Figure 10.2 Examples of post-it notes completed during co-operative and small group work

10.1.2 Development of key reading and writing skills

Calkins (2001, p. 15) suggests that teaching reading is like teaching living. She sets a high bar for educators to strive towards:

> It is important to give our students the words that will help them read actively, but it is even more important to invite them to become active readers. If we want children to read with wide-awake minds, then we need to invite them to live this way in the dailiness of our classrooms. Teaching reading then is like teaching living.

Teachers extended that invitation to students and by putting reading and writing at the heart of their classroom programme they communicated to them that reading and writing were important parts of life. The following comment illustrates that teachers saw themselves primarily as facilitators of learning:

> Particularly you see it in the writing, you know writing every day, it's kind of nearly like a meditation you know. I think that is the whole purpose. Well to me, life is like a mediation anyway, try to be more awake in your life. You know more awake in what you're doing. And that's the way I see them. It's like they woke up and they kind of thought 'wow this is about'. You can see their minds kind of being stimulated and waking up so they're in the process in a different way. They're not in the process as the receptor and you know the other person determines their motivation or their engagement in it. They are in it and we are all just trying to facilitate where they *want* to go and at times where they *need* to go. Do you know what I mean? (FIA/p.16)

A high priority was put on oral response to reading and writing in lessons giving children the opportunity to engage in real conversations about what they were reading and writing, just as real readers and writers do. Beginning towards the end of First class when guided reading was introduced and throughout Second class, in reading workshops, teachers focussed a lot on establishing prior knowledge before reading giving children opportunities to indicate their knowledge about a given topic or to build the background knowledge they needed to engage well with the particular text (see Figure. 10.3 for an example of a collaborative chart completed in small guided reading group). As one teacher remarked:

> Whatever the theme is you know....we do the prior knowledge part, if they have an interest in the thing then, they get a chance in that way to talk about it because you're trying to find out what they know about it. You find out a lot and they really elaborate, depending on the animal, you find they know a lot more than you think, or a lot more than you. And the boys seem to really know their facts about certain animals. The facts that aren't obvious or the facts that you have to have done a bit of research for, you know. (FID/p.20-21)

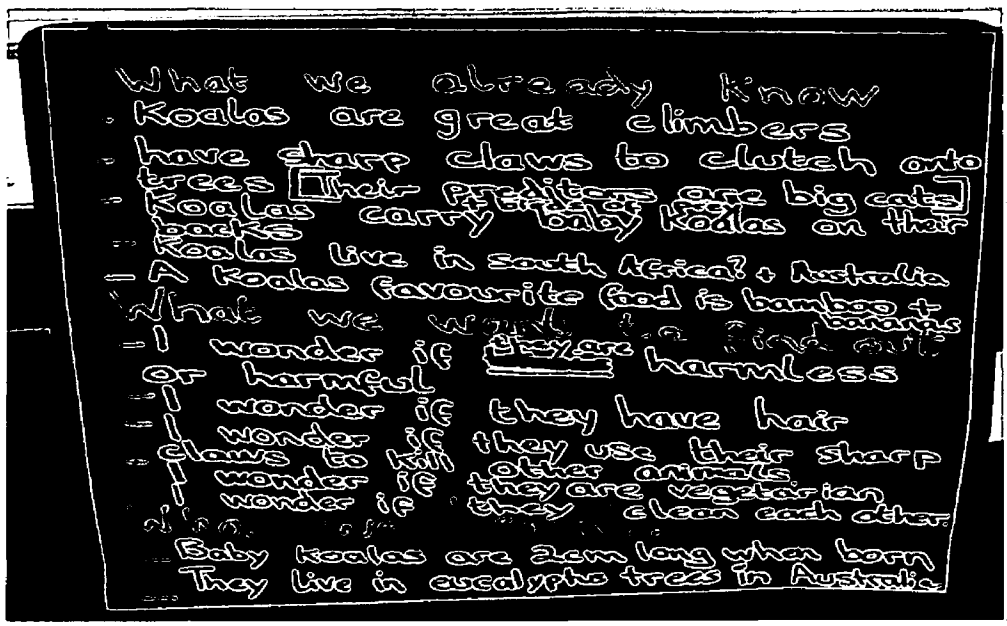


Figure 10.3 Chart completed collaboratively in a guided reading session.

When this element of the lesson became a predictable feature or way of life in the classroom children anticipated that they would have the time to talk, and so invested in time outside of the reading lesson in researching and reading further so they would have something to say. This was particularly true in relation to the non-fiction reading, which teachers introduced in reciprocal teaching routines in the latter half of Second class. Again, it underscores the importance of using a wide and stimulating range of books for guided reading instruction as this level of academic dialogue would not have occurred had the class reader continued to be at the heart of the reading programme as it is in most Irish schools. Engaging children in academically rich processing tasks such as this is a characteristic of highly effective classrooms (Lipson et al., 2004; Knapp, 1995). As one teacher said 'the new books have completely changed the programme that was there before' (FID/p.71). Children were learning the art of conversation and how to elaborate and build on one another's responses or to 'piggyback' as Fountas & Pinnell, (2001) refer to it. This aspect of developing oral language prior to reading was a new element for some teachers

> There is much more questioning, this I suppose is the major change....questions before we read. They would be a big point where before we would have been doing a lot of questions but during reading and after reading. Before it was more like at the end more of a

> comprehension thing at the end not drawing them in as much to the book. (FIC/p.4)

In another class, the teacher put a high priority on teaching children to really listen to one another and spent time teaching them the nuances of what was involved in demonstrating to others that you were actually listening. She taught them that everybody in the room is a teacher and when someone speaks it is important to really listen and learn. In this way children learned to respect each other and to value each person's contribution. Further, when they were speaking to the whole class she taught them to scan the room and to wait for silence before speaking, just as she did. When in small groups or pairs she taught them to pull their chairs close by and to make eye contact with the speaker (see Figure10.4)

> I suppose just to the say to them if you were up there talking would you like everybody to chatting and then daydreaming when you're talking. No you wouldn't. Then the whole thing to explain that you just don't learn stuff from me you can learn things from listening to other children as well and they do kind of realise that now, so there's kind of quality stuff going on here when other people are talking. And I suppose even the physical things like move your chair over and look at them. You need to teach them that, as they are quite young at the same time, and it is a hard skill to listen. Even the physical aspect, turn your chair which is the first step and then are you actually listening to what is going on? Or even have you a question ready now for the speaker when they are finished?....Or even I used to get the speaker just to scan the room as well and maybe just don't start talking until everybody is looking at you. (FIB/p.16-17)

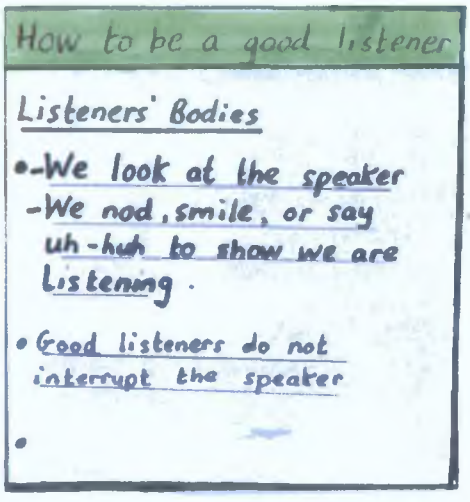


Figure 10.4 Example of a Good Listeners Chart

Another teacher made good use of conversational dialogue in her writing workshop where she taught children to listen to each other's texts and to notice elements of good writing:

> Yeah they loved it absolutely and they're becoming more, at the start they were sort of mimicking each other. I see them listening and really their listening skills definitely for each other, like they all, they really listen, they can actually quote each other. They say oh I like the way you said this or I like the way you, they pick up details which is really good. (FIC/p.17-18)

As Calkins (2001, p.14-15) points out:

> If we want children to listen to an author, won't we also want children to listen to each another, to link their ideas with those of classmates?....If we want children to empathise with characters in books, won't we want them to hear each other's ideas and perspectives and see these worlds and texts through each other's eyes minds?

These are not only critical skills to explicitly incorporate into a high quality meaning-oriented curriculum but they are key life skills to teach children: how to listen, to respond, to question, to debate, to agree and disagree and to have the confidence to do so.

10.1.3 Children's development as strategic thoughtful readers

By the end of the first year of the study, teachers noticed that children were now more active, more questioning, more strategic and thoughtful in their approach to literacy activities. These characteristics have been associated with highly motivated readers (Gambrell, 1996; Guthrie & Alvermann 1999). Interestingly, teachers credited the priority given to the strategy instruction as being a major factor in helping children in becoming active readers. As the first en teacher below notes, the thinking strategies helped the children become more self-regulated and to begin to notice when they did not comprehend whereas prior to the study they would not have noticed that they did not understand. The second teacher notes that the strategies were there as a real support to children as they engaged with books and that they had a real purpose:

> It was the variety available to them, the strategies, particularly the **thinking** strategies where they had to, the only way to engage was to wake up and think. Also what I became aware of from doing the strategies, was things like, say when you do the clarifying, that was quite recent, but that they're allowing a lot to go over their heads. Even that awareness coming in, this isn't just necessarily the best way to proceed that a whole load will go over your head. They need that small thing, and then making them watch to see what I don't know... (FIA/p.17)

> Their reading skills and also the whole language of their reading and consciousness about reading...there's loads of processes going on...they have a selection of strategies they can lean on and that we're not learning these just so we can sound smart. These are actually to help us get through a book and to enjoy a book. I think they enjoy the book a lot more now because other times, I had other classes, take a group to the library sure they were just looking at the pictures and like there was no reading going on. At least now when they pick up a book they're actually able to connect with the book and learn something from the book and enjoy the book....and it's helped their self esteem no end. (FIB/p.48)

In year one, as outlined in chapter nine teachers focused mostly on word-identification strategies and in year two the focus was more on the strategies that good readers use and on methods of clarifying unfamiliar words. Teachers created visuals to remind children of the strategies and displayed them around the room (See Figures 10.5-10.8) which Shanahan (2001) has indicated is an important aspect of the physical environment serving as reminders to children of the knowledge they have acquired. Teachers also credited the focus on metacognition as being helpful as it gave children a language around reading and how to talk about it and while teaching metacognitive language was a new feature for teachers they found it did give the children confidence:

> The children's enthusiasm to read and write really shone through and I think that almost all of the children really gained a lot of confidence from learning how to use the different strategies. When they were given the language to talk about the strategies it gave them the confidence to talk about them and therefore actually realise they can do them. (FID/p.69)

Figure 10.5 Strategies for figuring out unknown words designed by a class teacher

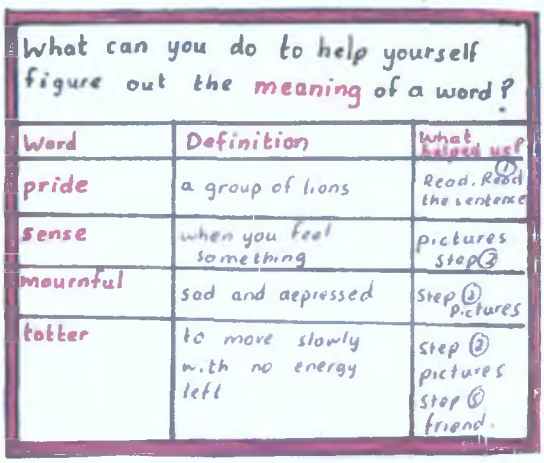


Figure10.6 Guided practice using the strategies

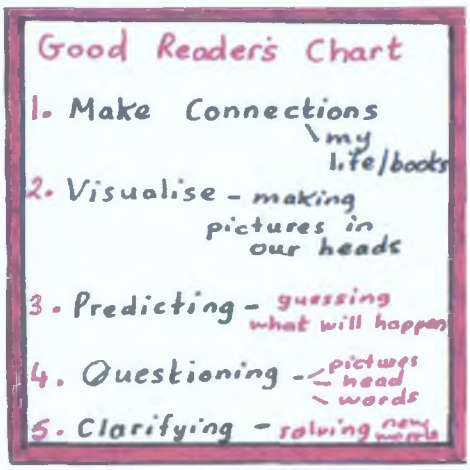


Figure10.7 Good readers chart

Figure 10.8 Multiple strategy use: reciprocal teaching in year two: chart designed by class teacher

There was evidence from the interviews with the children (representative of ability levels within the classroom) that the majority of them were aware of the comprehension strategies and were able to name them. Some had difficulty actually defining succinctly the essence of the each strategy but were able to give a working example of each one indicating that they had acquired metacognitive knowledge at least to the declarative and procedural level (Paris et al., 1995) as in the following examples:

> Think about the story, what page we're on and if you want you can predict, you can question or even clarify or summarise. You do all them. (Sharon/FI/p.4)

> Visualising is when you think in your head what the picture looks like if there is no pictures in the book. (Robert/FI/p.11)

> Clarifying. Oh, clarifying. Like you get stuck at a puzzling word and you don't know it and you clarify and you look for a clue or ask your friend and look in the dictionary or read over the sentence. (Conor/FI/p.7)

> R: What kind of questions would you be asking?
> S: What happened? What do you think might happen? What just happened on that page? What happened on the blurb? Did the same thing that happened on the blurb happen in the story?(Sharon/FI/p.14)

It was interesting to note that many children reported using the strategies in their independent reading and could give specific examples of when they had done so. The strategies that children reported using the most were the making connections (Keene and Zimmerman, 1997) most often text-to-self and text-to text connections, visualising, predicting and clarifying. In the following poignant extract, (final interview with a lower-achieving child), one can see that not only was she able to give an example of making connections but also was able to articulate how it had helped her understand the character's feeling:

> R What about making connections?
> M: Making connections is, ... this is a book and Tom was walking around and he went up to his house and his Mam and Dad were crying and he said "Mam and Dad, what's wrong?" they said "Granny died" and that made a connection to me cause my Granny died too. That made a really big connection.
> R: So how did that make you feel?

M: A little bit sad but I still made a connection
R: Ok, so does it help you understand if you can make a connection?
M: I know Tom felt the same way I felt when his Granny died (MadelineFI/p.25)

In the following extracts we can see that children were using the strategies for their own purposes in independent reading. In the first one the child is reporting how he was visualising a scene from a non-fiction book and this was the only child (of the interview group) who at the start of the study reported unequivocally that he did not like reading but the provision of non-fiction had made the difference to his interest. In the second one the child has a genuine question:

> Like there's no picture in the book and you have to think and imagine what the story is about.... It said most monkeys scratch other monkeys backs and eat all the things off them, I was visualising one of them doing that. (Robert/FI/p.12)

> We had a space book before and I had a question stuck on my mind and I couldn't get it out of my head. I wondered could astronauts do back flips on the moon. (Lindsey/FI/2)

In the Pressley et al.'s studies conducted in the late 1980s and early 1990s, of transactional strategy instruction, Pressley (2002) noted that there were four distinguishing features of instruction in the most successful classrooms: (a) decoding and comprehension strategies were taught; (b) they were taught in small groups but used throughout the day; (c) they were taught as interpretive vehicles to help students develop a personal understanding of the text; and (d) students were taught to co-ordinate the strategies and encouraged to use them in self-directed ways when they felt the need to be strategic rather than in rigid or mechanistic ways. All of these conditions were present in classrooms by the end of the study and encouragingly, many children reported activating the strategies for personal goals. Paris, Wasik and Turner (1999, p.634), have noted:

> .....the development of strategic reading depends on personal motivation to select and apply persistently strategies that are appropriate to the task. Such motivation requires knowledge about the instrumental value of strategies, different purposes for reading, confidence in one's self-

> efficacy, and beliefs about the ability to control reading to achieve a desired goal.

Clearly in this study, there were a lot of factors at work that helped children employ strategies ultimately in a self-regulatory manner. These included the opportunity to engage in wide reading much of which was self-directed according to interests, the use of the gradual release of responsibility model in strategy instruction (Pearson and Fielding, 1984) which scaffolded children's knowledge and use of strategies, the social dimension of learning promoted through challenging collaborative work, the fostering of successful experiences and the high expectations conveyed to children. These together over time served to enhance intrinsic motivation and promote feelings of self-efficacy amongst students, which in turn helped students to make the statistically significant gains in reading, writing and spelling detailed in chapter 11.

The strategy work had another very important effect. It gave children the tools and the determination to persist at a task they found difficult. Bandura (1995) suggests that perceptions of self-efficacy influences the level of effort and persistence invested in difficult tasks. Teachers had reported at the start of the study and even at the end of year one that children lacked the persistence needed to carry challenging tasks to their conclusion. At the end of the study, even the lowest achieving children demonstrated the ability to sustain attention at difficult tasks. One teacher gave the example of a low-achieving child (from a challenging home background and one in which the adults reported having low literacy levels) who made only small gains throughout the study and was still performing below the 20th percentile at the end but who was beginning to learn to apply his strategies:

> He's not where he should be, age wise, but he's really held onto the strategies he's been given. I think it's comprehension. Today when he was doing the Micra-T, the last section where you have to cross out a word that doesn't belong, I was really impressed with him. He's just able to slow it down you know. I think so many of them rush it, even the good ones just won't stop to think what is this asking me or am I sure I'm answering it properly or is there anything else it could be? He just went through it so slowly that I could tell he was actually able to read and understand and omit the word that wasn't supposed to be there. It was really kind of thinking for him you know. Of all the kids, I think particularly XXXX has definitely grown. (FID/p.37-38)

Enabling children to be independent readers and writers, was a key feature of the literacy programme in each class. The SET team also commented on children's independence and persistence. They felt that children now not only had strategies and how to apply them but they knew also *why* they were applying them:

> LSD: It was great but even if they were stuck they could say I need whatever word clarified rather than throwing down a book like I can think of before "I can't do it, it's too hard"
> LSC: Yes, they have the strategies and they know how to apply them and they know **why** they do such a thing so that does lead to independence doesn't it? (SET2/p.22)

In interviews with children several of them remarked that they now persisted with a difficult task and knew that if they used all of their 'tools' as they put it, that they knew they would be able to solve the difficult part:

> Well I think I've changed by I always give up when I am stuck on a word but now I use all my tools....The hardest thing I would think is when you get stuck on a word because you think oh I won't be able to get this done but if you use all your tools then you will get it. (Noreen/FI/p14).

> Because sometimes when I read, there does be words that I don't understand. Then I do stay there for around one minute and then I do get it' (Mary/FI/p)

Not surprisingly for this age group the majority of children had very positive perceptions of themselves as readers and writers and almost all thought they were very good readers and writers. At the end of the study it was clear from interviews that all children were proud of what they had achieved and knew that they had grown over the course of the study:

> I have just gotten better at reading because sometimes I couldn't read the books that I can read now. (Andrew/FI/p.1)

> I think that I'm getting better and better every day and that my writing is getting better and my spellings are getting better. Well I've grown up very fast and my brain is getting bigger and bigger with all the writing, reading and words that's in it. I remember it and I put it into my stories. (Madeline/FI/p.44)

Pressley (2002, p.305) argues 'to be certain, one thing the metacognitively sophisticated reader knows that it is a good thing to read, read, read. Such reading increases fluency, which increases comprehension. It also benefits prior knowledge, including vocabulary knowledge'. Children in this study when asked how they could get better at reading were of the same mind as Pressley!

> Just keep on reading books. (Robert/FI/p.6)

> Read loads of books with hard words in them, not easy, cause if you read easy words you wouldn't be able to become a good reader (Sharon/FI/p.9)

> You could just read every day and if you get stuck on a word you could just stay on it until you get it. (Mary/FI/p.8)

Parsons (2008, p.628) citing Perry, Hutchinson and Thauberger (2007), suggests that 'self-regulated learners are intrinsically motivated, strategic and metacognitive'. Many children in this study could be described as having these qualities by the end of the study.

10.1.4 Value put on literacy

Another theme that came through in interviews and conversations with teachers was the sense of energy that was generated because literacy was put at the centre of the school day and children had noticed that everyone was prioritising it. They could sense the excitement amongst the teachers in collaborating together and trying out new methods. They knew that something important was afoot when the school was flooded with lots of novel resources and all kinds of books. The interest their parents took was also hugely motivating for them. Parents who had rarely been seen in the school came to visit on the occasion when children modelled and demonstrated their new skills for them in their classrooms at the end of year one. Most of those invited to participate in interviews in March of the second year of the study accepted the invitation and were delighted to be asked. Many parents asked how they could help at home and took on the job of fluency training as teachers explained the processes to

them at parent-teacher meetings, thus affirming the children and the work of the school. This synergy of factors helped to create a sense of heightened expectation and a willingness to engage:

> But the resources, they had extra teachers, and they also the parents were involved and they were able to bring in the parents and show the parents as well and have meetings so they it's like valuing education. They could see that literacy was being valued by all the people. (SET2LSB/p.23)

> So I think it was probably a combination of the strategies, the amount of material that was available to them, fun in the learning process, but also, for the children in this area to feel that people care enough about them. You coming in, all the books being there, they have appreciation that you wouldn't get anywhere else... So they always respond I notice, when you come in even with your markers and things. They always feel "wow this is great" do you know? And that draws them in and the excitement of having post-its and all kinds of things. So I think it was a huge broad thing and also engaging with the SET team bringing them in there's a feeling then of something happening and it's the opposite to them sitting, receiving and not being engaged so much. (FIA/p.18)

Parents also agreed that fun in the learning process was a key factor. They commented on the teachers' commitment and their enthusiasm and were very appreciative of the teachers' hard work with their children remarking that their children were very motivated and enthusiastic as a result of the fun approach to learning in school. Many parents commented on the fact that their children were very attached to their teachers. As Cambourne (1995) reminds us, bonds between teacher and child are important, as children are more likely to engage with demonstrations that are conducted with those they like and who give them encouragement.

> When Jane comes home she is enthusiastic about doing her homework. She says, we have a new fun book, we have this to do. (GIP3/p.2)

> This programme this new programme is more, what I am seeing is learning in a fun way. It's the easiest way I can sum it up in a nutshell and because of that you are learning, you are not stuck in the old regimental way....I truly believe if you have nothing in this world but you have confidence you will go a long, long way...Be it good, bad or indifferent you can live here which is classed as a very low class area or you can live in Howth which is classed as a very high class area but it doesn't matter. It's nothing to do with money it's to do with how they are taught at the end of the day. (GIP6/p.2)

Several parents also commented that the small class sizes were a factor and that their children were receiving a lot of care and attention as a result. They worried about them going on to the senior school where there were larger class sizes. As one parent said:

> Fifteen or twenty in the class that definitely works, but I would like to see that run (to senior levels) but when you move from here to the senior school it's like another universe because you go from fifteen kids to twenty or thirty and it's like being thrown in at the deep end. Give everybody a fair chance and to be honest there is enough teachers now and enough money being generated in this country to apply the strategy. (GIP6/p.4)

The high priority and value put on literacy had been noticed by parents and children alike and the sense of energy generated as a result had heightened the enthusiasm and motivation and engagement of the children in learning, contributing to the significant gains they made across the board in literacy. The importance of putting such emphasis on literacy should not be underestimated and indeed it is one of the key distinguishing factors of the most successful disadvantaged schools reviewed in the literature in chapter two (Taylor et al., 1999; Lein et al., 1997; Designs for Change, 1998; Puma et al., 1997; Hope for Urban Education, 1999). As well as noting the changes in the children teachers observed that the study had had a profound effect on they themselves.

10.2 Teacher Perceptions of the Effects of the Change Process on Themselves

A number of themes emerged in the course of the interviews. These included enhanced subject knowledge, feelings of self-efficacy, higher expectations for the children, development of a life-long interest in teaching literacy, and feeling valued for their knowledge and expertise. Some of these themes certainly overlap, yet it is interesting to see how teachers expressed their thinking about them and how they connected in different ways for different teachers.

10.2.1 Teacher expertise and autonomy

Shulman (1987, p. 8) argues convincingly that what a teacher understands about what is to be taught and how it is best learned by children is critical to effective teaching. He suggests that effective teachers possess many categories of knowledge (see chapter two) but:

> 'pedagogical content knowledge is of special interest because it identifies the distinctive bodies of knowledge for teaching. It represents the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organised, represented and adapted to the diverse interests and abilities of learners and presented for instrucion. Pedagogical content knowledge is the category most likely to distinguish the understanding of the content specialist from that of the pedagogue.

An essential part of the professional development provided for teachers was provision of a wide range of professional readings on the current research base on how best to teach literacy. It sought to enhance teachers' content knowledge from the research base in each of the critical areas of literacy acquisition: alphabetics, comprehension, vocabulary, fluency and writing and also how to combine each of these elements into a balanced literacy framework that would suit their children and school context. A key element of bringing about changes in teaching is the creation of a certain level of 'cognitive dissonance' (Thompson and Zeuli, 1999). The professional reading material provided to teachers did just that and helped lead teachers to question their current methods and beliefs around literacy teaching. As one teacher said: 'I got a lot from the readings. Challenging stuff, made me think. In reality we've been doing it wrong for the last 20 yrs.! Everybody across the country has, all teachers.' (CLST4). As Shulman (1987) points out as well as content knowledge teachers also require the specific pedagogical strategies particular to the discipline that will build the capacity of the teacher 'to transform the content knowledge that he or she possesses into forms that are pedagogically powerful and yet adaptive to the variations in ability and background of the students' (p.15). Many of the professional readings that were provided to teachers included the strategies needed to teach the content and many incorporated classroom vignettes of the strategies in action. Classroom demonstrations by the researcher also helped in that

regard. Teachers were of the opinion that the professional development had changed them as teachers:

> 'I've never really seen teaching like what we've been doing in any school, no, I haven't really...Our knowledge has gone up one million per cent... I mean, at least now I know what I am trying to achieve....I have a full, it's kind of now when I'm looking back, I have a full view of what literacy is and what a balanced programme is that I can go back now and try and shoot at every area instead of wandering through hoping hit and miss, maybe miss more times than hit, do you know what I mean? (FIB/p.63)

> We have new methodologies for reading and writing, great resource of different activities to go along with reading. And just we've learned to structure things better for a reading lesson or a writing lesson from teacher modelling and demonstrating and letting the kids practice the new strategy that they're trying to learn. And then the meta-cognition, asking questions, to make sure the children have understood what they're supposed to do. So it's completely changed the way I approach a reading and writing lesson (FID/p.70-71)

Shulman (1987) contends that teaching is a process of comprehension, reasoning, transformation and reflection. Therefore, the professional development sought to put this process into action. It began by helping teachers understand the research base and the theory and philosophy underpinning the methodologies shared with them. The goal was to honour teacher autonomy and to encourage them to use the research base 'to provide the grounds for their choices and actions' (Shulman, 1987, p.13). Shulman (1987, p.13) drawing on the work of Fenstermacher (1978, 1986) further argues that:

> The goal of teacher education is not to indoctrinate or train teachers to behave in prescribed ways but to educate teachers to reason soundly about their teaching as well as to perform skilfully. Sound reasoning requires both a process of thinking about what they are doing and an adequate base of facts, principles and experiences from which to reason.

The articles and professional development sessions had provided the teachers with the latest research on literacy teaching and during these sessions there was a genuine exchange of ideas between the researcher and the teachers. Teachers had time to debate issues, reflect on their practice and decide on the direction of the change process. In engaging with new material and considering how they would adapt their teaching teachers in effect had to make a journey to (Shulman, p.12):

> Commute from the status of learner to teacher....from being able to comprehend the subject matter themselves to elucidate subject matter in new ways, reorganise and partition it, clothe it in activities and emotions, in metaphors and exercises and in examples and demonstrations, so that it can be grasped by students.

They had to own the new material and in effect transform it, which according to Cambourne (2002) involves the learner in transferring the knowledge they have newly acquired and demonstrations they have observed into a set of understandings that is uniquely their own. This kind of approach to professional development respects professional autonomy. It encourages teachers to experiment and innovate in ways that suit their personality and teaching style while also honouring an overall framework and structure for best practice in literacy. As Au, Raphael & Mooney (2007, p.28) argue, policy makers who want to effect changes in literacy achievement in urban schools would do well to treat teachers as professionals 'as creators, not just receivers of curriculum' and should not fall back on prescribing particular programmes. In this study, the autonomy of the teacher was paramount and it sought to provide opportunities for teachers to respond creatively to the pedagogical content strategies in unique and personal ways which in turn influenced that way they engaged children. Grainger et al. (2005, p.183) suggest that creative teachers adopt 'a learner-centred focus....responding to children's feelings, engaging their interests, maintaining their identity and autonomy.' Teachers appreciated the non-prescriptive nature of the balanced literacy framework and professional development sessions, which valued them as professionals and allowed them to respond to the individuality of each child:

> And it happened to suit my type of personality I think in that it was quite broad and it honoured the individual needs of the children and their way of going through a process which I really would feel very strongly about and also offered an opportunity for each child to develop and bring what their particular creative strain is in the world, you know? (FIA/p.53)

> Well, I think that the most important resource was the teacher and then you've invested a lot into us and in our training because there was no point in giving us a load of books, if the teachers don't know how to use them. So I think that's the best thing out of the programme is you've trained us...Even if the books go or if we're in a different school....it's all in us everything that we've done. That it's the whole thing about, like

> it's the teacher is the most important resource in the room all the time and that's really what, the programme has changed us as teachers. (FIB/p.54)

Honouring teachers' individuality created a strong change programme and teachers invested a lot of their personal time and energy in the process often staying after school to work on professional development. At the end of the study teachers felt they had a deep understanding of the components of a balanced literacy programme. They were of the opinion that they were now able to put a more systematic and structured programme for literacy in place. In final interviews they were very articulate about expressing what they felt was essential to include in a balanced literacy framework and why it was necessary:

> I'd see word work in as interactive and as varied a way...writing workshop is a key thing because that is where they engage with text and in another way with writing and see themselves as writers, that is huge. So that one is new and it's key I think to the whole thing because it gives them reason, they see why it is important to learn to spell the word and it's the whole expression element...then the reading, I think being able to go through a lot of text, a variety of texts, a levelled approach so it takes that whole sense of failure or struggle out of reading. The way we did it really, a levelled programme broadening out then once the early obstacles that were taken out, decoding, out into the whole experience of the whole world of reading, where their decision of assessing, choosing and developing their sense of taste in literature what they like and don't like...I always think you're looking to see what you did to enhance their lives... (FIA/p.34/35)

As Shulman (1987, p.9) also points out, the knowledge base in teaching 'is not fixed or final' (p.15) and so teachers need access to and an understanding of the 'domains of scholarship...what are the important ideas and skills in this domain? How are new ideas added and deficient ones dropped by those who produce knowledge in this area?'. As can be seen from the quote below the teacher felt that she now had an enhanced understanding of the current research base and just as importantly how to go about accessing new findings in the field:

> For me the highlight has been the professional development and just becoming more aware of the research that is out there, how to access it, what authors to read and just the quality of my lessons, have improved. My methods and practices have changed according to the new best practice literature that we've been reading so that's the highlight for me...(FID/p.70)

Two of the younger teachers noted that their undergraduate teaching qualification had not prepared them adequately enough to teach literacy well. This finding converges with other research conducted in the Irish context (Eivers et al., 2004).

> In college, you just skimmed everything. You had no time to deal with it in depth and as well you were learning it off by heart one month and you wouldn't be trying it out for three years. So the chances, you know absorbing beautifully in it, wasn't going to happen really. And then teaching practice is quite stressed as well. You can really only learn teaching I think when you're on the go, when you're actually doing it, you know? (FIB/p.48)

As the teacher above notes college experiences do not prepare one well and that is in large part due to constraints that operate at the pre-service level in Ireland that militate against the provision of the kind of experiences that would enable students to develop the depth of expertise now required to teach literacy well. These include the current time allocation for literacy, the high numbers of students on the B.Ed. programme and the current structure of the degree which does not allow for extended periods of time for students to learn on the job. As the teacher above points out teaching practice is stressful and unlike other countries is of relatively short duration, typically four weeks at any given time rather than a four-month block as it is in other countries such as the U.S.A. The provision of a fourth year on the B.Ed. as strongly recommended in the review of primary teacher education (Government of Ireland, 2002) would allow for a re-envisioning of teacher education and perhaps provide the kinds of experience that would help undergraduates acquire a deeper understanding of the complexities of teaching literacy well and to engage in the processes of comprehension, reasoning, transformation and reflection as outlined by Shulman (1987). Of course it must also be acknowledged that learning to teach is a life-long pursuit and not everything can be dealt with at pre-service nor is it possible to do so. Therefore teachers have special responsibilities to continue to engage in learning long after their initial qualification as outlined in the research base in chapter two.

10.2.2 Life-long learning

Arising from the professional development that the teachers engaged in, was a sense amongst them that they had learned a lot over the two years but that they were still

learning 'cause two years like what, and it's only literacy and we're all learning, all the time, you know, what new things to do' (FIB/p.54). One teacher felt that she had now had developed an interest in literacy in a way she did not have before:

> I never would have seen myself, really if somebody had said to me years ago 'oh you'll go mad into the full literacy thing and things like that' I would have said 'oh, I couldn't see that happening'....I'm interested in an area I never thought I'd be interested in and so for me personally it has provided me with a huge amount of stimulation in my professional life and it has offered the experience of success you know and I'm always happier when I feel I'm learning something, that I am sort of developing in some way. (FIA/p.28/53)

Arising from the interest generated by the study and the level of professional development engaged in and the professional readings that were provided, teachers were keen to continue to learn more and towards the end of the study (after Easter in year 2) they expressed interest in obtaining a professional qualification in literacy. Consequently, they enrolled in the Certificate and Diploma programme at St. Patrick's College, with a view to continuing to Masters' degree level. While some exemptions were given from classes due to the level of professional development provided throughout the study there were a number of academic requirements to be fulfilled such as assignments, a school based project and a diploma thesis which were required before proceeding to Masters' degree level. One teacher developed a parent programme and parent-friendly manual for supporting school literacy activities in the home and another teacher opted to investigate how best to develop children's vocabulary. Teachers reported that engaging in the academic work for the assignments had consolidated their knowledge base and given them further confidence in themselves. This approach of linking professional development to a qualification in literacy is one which is increasingly being reported in the literature on school change in relation to literacy in recent times. The Reading and Writing Project at Teachers College Columbia, New York (Calkins, 2001) is a good example of this approach, as is the Partnership Read (Chicago)/High Rise (Hawaii), (Au, Raphael & Mooney, 2007) both discussed in chapter two. In these whole-school approaches to change specific on-site professional development is provided as is some coursework off-site and teachers are given the opportunity to participate either for credit or non-credit. Those who participate for credit undertake the academic

assignments and this earns them exemptions from some courses if they proceed to Masters level. Having recognition in terms of a professional qualification for their new knowledge was something that teachers really valued. Given that they felt it had consolidated their knowledge it is likely that this aspect also interacted to create the enhanced confidence they felt they now had in their ability to respond to the challenges of teaching literacy in a disadvantaged setting.

10.2.3 Self-efficacy

Bandura (1995, p.1) points out 'inability to exert influence over things that adversely affect one's life breeds apprehension, apathy and despair.' This is precisely the sentiment expressed by one teacher who said that that was how she had come to feel about teaching in a disadvantaged area prior to the study, yet at the end, she felt very differently:

> I never felt confident tackling literacy. I always felt it was this big sea you know...When I'd see children with certain difficulties and not knowing exactly what it was and how to get them out of it, I used to feel a certain hopelessness. I tried certain things that either I met in college or afterwards, but I'd be keeping a bit of phonics, a little of bit this, that and the other. So for me it has totally transformed my attitude to literacy, mostly because I think there was a certain amount of ignorance on my part. I didn't know enough nearly to know what to do. But what was interesting before was this kind of, you go in to do something and so many kids would be sort of launched into difficulties I couldn't understand and I'd think "oh my God" you know? And feel a sort of a certain element of deflation and I'd think, "What can you do?" do you know? So I found for me, the whole professional development, seeing and really understanding at a core concept level exactly what all the little areas of change do so then I felt I could identify problems and know what to do. I did find the process quite exciting....(FIA/p.27)

Bandura (1995, p.2) argues that 'perceived self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations. Efficacy beliefs influence how people think, feel, motivate themselves and act.' As already outlined, a major goal of the professional development was to equip teachers with the specific content knowledge they needed in literacy and also the pedagogical strategies for implementation which in turn would give them the tools they needed to begin to consider how they might adapt

their literacy programme to meet the diverse needs of the children. But that alone was not enough. Guskey (2003) suggests that first teachers need to experience success in the change process because that will give them the impetus to continue and a belief that what they are doing is effective. Therefore it was critical to the success of the study that teachers develop confidence in their ability to deal with literacy difficulties early in the study and as outlined in chapter eight after analysis of student data, an attainable first goal was set and supports were put in place to help teachers begin the change process by providing the sorts of experiences that Bandura (1995) suggests foster self-efficacy (a) mastery experiences (b) vicarious experiences (c) social persuasion and (d) physiological and emotional states.

Firstly, vicarious experiences were created for teachers in two ways. Professional reading materials that contained vignettes of actual classroom practice and the kinds of dialogue, resources and sequencing to use in lessons which helped teachers to envision how they might attempt to put those methodologies into place in their own classrooms. Secondly, the researcher upon invitation from the teachers volunteered to model lessons for the teachers thus showing the teachers that she too was willing to take a risk and experiment and a number of DVDs also provided support. Vicarious experiences such as these help raise observers' beliefs in their capacities to replicate the actions themselves. Another feature of the professional development was alerting teachers to the research on effective schools that had 'beaten the odds' which in turn gave them the confidence to have a go in the belief that they too could effect change if the right supports were put in place for them to integrate the latest research on best practice in literacy. Bandura refers to this as social persuasion and suggests that 'people who are persuaded verbally that they possess the capabilities to master given activities are likely to mobilise greater effort and sustain it (Litt 1988; Schunk 1989, cited in Bandura, 1995). Thirdly, the effect of mastery experiences was influential in building teachers' self-confidence. The professional development allowed time for planning and for teachers to collaborate on how they might adapt what they were learning to their particular children. Thus the structures put in place and the supports given ensured that teachers would have a high level of success as they introduced each change. As Bandura (1995, p.3) points out: 'successes build a robust belief in one's personal efficacy'. Once teachers began to experience success and saw the changes occurring in the motivation and

engagement of the children as well as in their actual achievement, it empowered them further. It increased their self-esteem and confidence in their ability to respond to the challenges they were facing on a daily basis. This as Bandura suggests is the fourth way to build self-efficacy as it leads to positive changes in ones mood and 'positive mood enhances perceived self-efficacy; despondent mood diminishes it, (Kavanagh & Power 1985, cited in Bandura, 1995, p.5).

In the final interviews teachers reported that they felt their self-confidence increased as a result of their successful experiences:

> Well I suppose it has improved my self-esteem too now in myself....I actually can teach reading and literacy because before you were thinking oh am I doing this right, am I a good teacher, am I actually teaching strategies or what am I doing. You know before the project started. At least now I know I am teaching the right stuff to the children. You know at least I have a structure now, cause before I was trying out other things. At least now I know that it's all based on the best research as well, you're not trying out things that might fail. You're trying out stuff that has worked in other schools and that's going to work with you if you use it properly. We had success with everything...we are confident now with everything that we have learnt and we know it works. (FIB/p.62/63/64)

Bandura (1995) also argues that teachers who have a strong sense of their instructional efficacy are able to create motivating and stimulating environments for their students and are more likely to provide mastery experiences that in turn nurture their learners' beliefs in themselves. Grainger et al. (2005, p.183) contend that teachers who are 'conscious of the potency and pleasure of their own energised participation often feel an accompanying responsibility to engage children with themes and possibilities in which they can become thoroughly involved.' It is clear from the preceding section in this chapter that the children were more highly motivated and engaged with literacy at the end of the study. It is likely that a synergistic relationship existed between the teachers and children's sense of self-efficacy and development in one supported and strengthened development in the other. Knowing they now had the expertise to rise to challenges helped teacher to see themselves as critical decision-makers (Hall, 2002) and powerful enablers who could effect change, would continue to learn and to it led them to set even higher expectations for the children they served.

10.2.4 High expectations

Research in disadvantage in the Irish context has indicated that teachers tend to have low expectations for their pupils (Eivers et al., 2004). In interviews in that study, teachers and principals pointed to the challenging conditions they experienced in teaching in high-poverty areas and cited the difficulties children had with oral language and the attainment of basic literacy skills. Certainly, at the start of this study teachers would have had similar views and would have cited similar evidence as reasons for not holding high expectations for the children, particularly in the area of writing as reflected in the following comments:

> That's I think the one area, if you were to show people in any area how much they can write, they would be really impressed. It just shows that it has really worked well. I think if they said to us before "do you think that child could write two foolscap pages or one foolscap page in 20 minutes?" you'd say "you must be joking" you know. So that really shows, that is evidence that that has really worked. (FIA/p.34)

> I think, I learned so much from it that my own confidence grew you know like I said. But my expectations for the children, that really grew. I was like wow, look at, like I said, I wouldn't have thought they could have performed as well as they could, you know from the start. (FIC/p.43)

Other research has also indicated that focusing on disadvantage and its effects over a number of generations can lead to a culture of low expectations and a certain defeatist view that the problems are insurmountable (Archer & Weir, 2004). Teachers in this study felt that they had tried things over the years with few tangible results, which had led to a certain frustration and feelings of helplessness to effect lasting change. As one teacher said you begin to adjust to the standard you are seeing on a day-to- day-basis and you forget what is possible:

> Like I think we've said, you know, it is the most exciting thing that has happened on the literacy front....because like it or not if you are in the same area with the same groups over the years, now outside you may see different children and different levels and different standards. But it was wonderful to raise the bar and the thing is not alone did they reach the bar, a lot of the children they actually surpassed it. (SET2LSB/p.9)

Repeated failure to effect change led to what one teacher called 'a certain amount of despair and frustration' (FIA/p.54) and which over time had had the effect of lowering expectations. It had also led to a slower pace of instruction which was more focused on acquisition of basic skills than on higher-order thinking:

> (children here)....need consistency more so than children in the advantaged schools. You know, so everything has to be done in very tiny steps and very structured you know....(CLST1/p.37) (start of study)

> And that was the biggest thing for us all. I mean we would have been coming and I know certainly that I would, you know you'd be, cause you'd be waiting to make sure that they have a really good base, a good solid base and everything. But I think we got, we probably got hooked up on that. I did anyway, and then you'd be thinking you wouldn't move until...(SET2LSA/p.27) (end of study)

This is in line with other research on disadvantage. Knapp et al. (1995, p.1-10) noted that the kind of instruction traditionally provided for children in high-poverty schools was usually skills-based rather than meaning-oriented due to the perception (and early research e.g. Brophy & Good, 1986) that these children needed instruction to proceed from part to whole (letters to words to sentences to paragraphs to stories. Sight words and phonics were seen as a pre-requisite to real reading and taught in isolation). Knapp's influential study has shown however that children who were in classrooms where the teacher emphasised meaning-oriented instruction performed significantly better on standardised tests and also acquired the basic skills equally as well as students in classes where there was a primarily skills-oriented approach to instruction.

But as teachers' confidence grew and they saw the gains children were making gains on standardised tests and just as importantly observed positive changes in their engagement, they automatically adjusted their expectations for children and in fact they continued to raise them throughout the project. This was a natural consequence of the empowerment they were experiencing as a result of knowing they had the capabilities to respond to the children's needs. In fact, within the two years of the study they had met the 10-year target recommended by the Eivers et al. study (2004) which had given them a great sense of achievement. That study recommended that the 2002 National Anti-Poverty Strategy target be replaced by a

target specifically for disadvantaged schools whereby the proportion of pupils scoring at or below the 10th percentile should be reduced to between 14/15% of the pupils in the school. Had the study started by telling teachers they needed to have higher expectations it would not have worked because they needed to see success first before committing to a vision which they would have felt was not achievable at the outset recalling the research of Guskey (1986, 2003). By the end of the study, teachers were no longer happy to have children just acquire basic skills, they had much higher aspirations altogether. They had moved to 'a vision of children who can think and act for themselves' (Moss, 2001, p.136, cited in Grainger et al., 2005, p.179)

> Well at least I know now what I'm trying to achieve. That I'm trying to achieve, readers who are independent learners who can learn on their own and who have strategies they can lean on, not asking me oh what's this word....You want them to be able to read on their own so even when they leave you to go to senior school that they're still equipped just cause they've left you. It's like when you've left us we will still be equipped, ...lifetime skills I'm trying to teach. (FIB p.64)

Archer and Weir (2004, p.32) in a review of policy provision in disadvantage in Ireland suggests that one of the gaps in provision is 'any concerted effort to help teachers and parents to set high, but realistic expectations for what their children can achieve.' It would seem from this study and that of other researchers (Guskey, 2003; Bandura, 1995) that one of the most powerful ways to change teacher expectations is to enable them to have successful early experiences in improving the achievement and motivation and engagement of the children they teach.

Research in Ireland (Weir et al., 2001) has also shown that teachers tend to hold low long-term expectations for pupils, as evidenced by the fact that a majority of teachers felt that most pupils would not stay in the school system past the Junior Certificate level which contrasts with the high numbers of pupils in mainstream who do remain in school for the entire secondary cycle, (typically between 80-90%). In the current study, teachers were also asked if they felt children would succeed in the education system in the long term. In relation to long-term expectations two of the teachers were of the opinion that perhaps a quarter of children would go on and succeed at the college level:

> It's important to sow the seeds there, oh you will be going to college. You see when we were young, even though you weren't told you were going to college it was never that you weren't going. It's like well that's the next step, you do primary school, you do secondary school, then you do this. That's something that's missing here. It's you do primary school, try and get through half of secondary school and you know what ever else. But I still have great aspirations for them. I remember telling XXXX, look with your brain you could do whatever you wanted. I hope XXXX gets to college, I hope XXXX does, that they all do... And even XXXX, I can see XXXX as a teacher. (FIB/p.71)

> Definitely, there are some. The group I had, were a particularly stable group. Most had two parents at home which is very unusual and interested, very well cared for. It's an unusual group. I'd say the ones within that, I'd say they will, I'd say about 25% of them hopefully will make it right through education. I mean it depends on home backgrounds. I mean there are some very good kids, chaotic home backgrounds or not even necessarily chaotic, very loving but their lives are about other things. If the kids are happy, they're happy and there isn't I mean they will go so far but that is grand... There will be, definitely there will be some in there that will make it, there will be. Interesting to see in years to come who does. (FIA/p.59)

In interviews with children several also expressed the view that they would like to go on to College as in the following extracts:

> I'd like to work in a shop or something or work as a doctor' (p.7).... When I get older I might be able to be an author... Yeah I'm good at looking at things and drawing it without tracing it.... I can illustrate and I can be an author as well (Linda/FI/p.13).

R:	Do you think it's important to be a good reader?
Sharon:	Yeah I want to be a good reader for college
R:	Are you going to go to college yeah? What would you like to do in college?
Sharon:	I would like to be a Teacher (Sharon/FI/p.13)

R:	Do you think it's important to be a good reader?
M:	Yeah, I really do, I think I'm a very good one that people would love if I was an author or illustrator and all the children an all coming to see me, I was to come to schools and all, I think they'd be very happy to see me...I want to write loads of books
R:	Wow, maybe someday I'll be going into a bookshop and I will be saying there is Madeline XXXX, I knew her when she was a little girl. (Madeline/FI/p.28)

The children in the above extracts had exhibited a range of achievement on standardised tests. Sharon was reading below the 10^{th} percentile at the outset and had

risen to the middle while Madeline progressed more slowly in reading moving from below the 10th to just under the 20th percentile. Yet she was achieving at the 70th percentile in spelling and as one can see from the exchange above was very keen to become an author and had a vision of herself visiting schools in years to come! The success that teachers had experienced and the changes that they had witnessed amongst the children gave them the impetus to spread the change process across the school. Their perspectives on this are presented in the following sections.

10.3 Sustaining Change Through the Development of a Professional Learning Community

10.3.1 Building a community of practice

The development of professional learning communities is seen as an integral part of school change (Hord, 2008) and literacy reform in the USA (Au, Raphael & Mooney, 2008; Kinnucan-Welsch, 2006; Calkins, 2001; Taylor et al., 2002, 2003). Hord (2008) states that professional learning communities have a shared vision of the changes they want to bring about and a set of common beliefs, values, and practices. This was certainly true of teachers by the end of the current study and it came about through the success they had in enhancing children's achievement and through their shared experiences in the change process. They all engaged with the same professional readings and took part in a range of professional development activities (outlined earlier and in chapter eight), which served to bind them together, giving them a common language and frame of reference when discussing literacy. This was apparent when teachers were together either formally or informally. They valued the opportunity to discuss at a deep level what they were trying out and they valued the opportunity to learn from one another:

> You have more to talk about and also we are trying out, we're experimenting on things and trying it as a whole group. Not just ourselves... I suppose we are more excited about trying new things as well, we like talking about it. Even we'd be talking about it on the way home and everything! I think it is good like that to talk with other people cause you learn more. (FIB/p.12)

They assumed a collective responsibility for piloting new practices in literacy and and evaluating their effect on children's learning. They were operating as a 'research-based professional learning community' (Hord, 2008, p.12). They were eager to sustain the change process in the years to come and to expand it across the school.

10.3.2 Sharing expertise

Teachers in the school had already begun disseminating ideas over the two years of the study. Firstly, they had presented at staff meetings and whole school planning days, sharing examples of the kinds of practice they had been engaged in. They had participated in documenting school practice and the setting of targets for the DEIS strategy (DES, 2005). They had also taken on the role of mentor to the next group of teachers who were teaching First class and were endeavouring to show them, through modelling and demonstration in these teachers' classrooms, how to work towards the kind of literacy practices they were using. Thus, these kinds of roles were enabling them to develop leadership skills (Lieberman, 2006; Au, Raphael, & Mooney, 2007), which could sustain the process of change. The mentoring activities had begun with great enthusiasm but had petered out by the end of the first term partly due to the lack of infra-structure for the facilitation of these activities at school-level but also because the teachers were still encountering new methodologies themselves and trying to implement them so it became too much too soon leading to a sense of overload. Even this small amount of collegial sharing had had an effect and teachers not involved in the project made changes to their instructional programmes, particularly in the areas of phonics and writing on foot of what they had heard and seen. The SET team observed that the MIST scores for the new cohort of First class pupils had shown a dramatic change to those at the start of the programme:

> But I think the amazing thing really is that it has been so effective in a sense. When you look at the list you know the people who really need individual help, they're not there in those numbers any more like we had. Like you could hardly cope with what you had and now they're getting nearly what they need in the class, as such, with support you know and that's a big turning point. Nobody crops up as having the three critical scores. (SET2LSA/p.11)

10.3.3 Creating organisational support

In order to sustain the professional sharing that teaches had tried to initiate it would be necessary for organisational support (Guskey, 1986) or 'structural support' (Hord, 2008) to be put in place. This support is recognised as a critical condition for sustaining change and facilitating the development of shared decision-making and professional collaboration where new beliefs and practices can be expressed, shared and nurtured.

Teachers in this study felt that the collaboration and planning, which had occurred throughout the project were key aspects of their success. They felt that this needed to be formally recognised and timetabled at a school level in order for the changes to not only be sustained, but built upon. This is not easy in an Irish context but it is essential for schools to consider how they might facilitate this kind of collaboration and reflection amongst staff members. Teachers felt that it needed to be achieved without compromising instructional time for children and they had a number of suggestions for how it might be facilitated in the future. First of all, as the planning meetings with this researcher were now no longer needed, they suggested that a decision could be taken at school-level to keep that planning time which had been facilitated by the Junior class teachers. They felt this was critical and that the SET team should also be a part of it to ensure cohesion between classroom and support programmes. The SET team suggested that teachers (Junior and Senior Infant teachers) who would be providing the cover could teach other subjects such as music or that the time could be used as Drop Everything and Read Time (D.E.A.R. time) or for children to explore their own interests in reading and writing (SET2 p.12) so as instructional time would not be compromised. Classroom teachers suggested that the junior class teachers should come and observe them teaching literacy and that it would have mutual benefits:

> Once a fortnight and still the thing about it is we'd still be teaching the kids and they'd be watching and we'd be both, we'd be kind of preparing good lessons for them to see as well so it would help us both get moving and get learning. (FIB/p.66)

10.3.4 Nurturing trust

It is clear from the quote above that teachers were very comfortable with each other and were open to supporting one another as they strove to expand the change across the school. Hord (2008, p.12) refers to this as 'relational' support. She contends that 'trust is a significant factor for the community and leaders should take steps to build this important capital' (p.12). Throughout the study, a climate of openness and honesty permeated the discussions and the planning meetings. The change process was seen as one in which everybody was learning, researcher and teachers together. There was a spirit of experimentation and an attitude of 'let's try things and then evaluate how it works'.

When teachers experienced this openness, they felt that they could share their successes and failures and also say when they needed help with something. The latter aspect developed more in the second year of the process as teachers had begun to see the change process as an on-going learning experience for them, one in which they wanted to further hone their practice and continue to learn as they strove to take on other new methodologies and as they questioned how the new methodologies were impacting on students' learning. Hord suggests that when this occurs it signals that a major shift in thinking has taken place and is a sign of a well established professional learning community. Teachers were also good at recognising when their colleagues had mastered an aspect particularly well and were comfortable acknowledging that they could learn from that:

> I know XXXX used it a lot and she seems to have gotten on top of that programme (phonics) so I would like some more help with that programme. (MID/p.28)

> Say when XXXX showed the Venn diagram, I've never done that, that was a very useful thing to do so even things like that you know, you say "oh yeah". (FIA/p.26)

Dealing with change is a delicate matter and how best to support it, particularly when substantial changes are required, is something that needs to be carefully considered. Asking people to change how they are doing something implies that there is a better

way of doing it and can make them feel threatened. As one teacher observed, it is best not to overwhelm and change should be introduced gradually:

> Some people when they hear of something new, straight away they think of what they're not doing. They're in a slump already. It's like "oh God" you know so you're dealing with people's emotional thing and also with practical things, but I think really, probably as we did, introduce one thing at a time. (FIA/p.44).

People need time to get comfortable with the proposed changes and consider how they will affect them personally, before they move on to actually engaging with the changes (Hall & Hord, 1987). Also, as Guskey (1986) has pointed out, teachers care hugely about their students and are often reluctant to embrace change in case what they are being asked to do will not work and will result in lower achievement for their students. That is why success must be built in early to the process. This sentiment was also raised by one of the class teachers as she reflected on how the change process might occur across the school:

> But a lot of teachers are very perfectionist and **fearful** about launching into new things and away from structures they had. It's quite a **leap** this kind of programme because you're working as a team with the SET team. You're being asked to let go of structures where people feel safe. If I have structure equals I have covered the English programme...But it's a huge shift to ask really and I think that **that's** where the professional development, talk to other people who have done it, make people aware gradually in some kind of way that they realise that it's actually a shift in their thinking you're looking for as much as in...(FIA/p.46-47)

It was interesting that she also pointed out that one can never be fully prepared for something new and that it actually takes a leap of faith to begin. At some point when one has been prepared for the process one must actually have a go before one can truly learn. What is required is a spirit of experimentation, a reflective stance, a willingness to try and a willingness to re-engage with the theory if it doesn't work out. Understanding comes through the construction of new knowledge:

> Another thing is, a lot of teachers are real perfectionists. They think I have to really get a handle on this before I try it at all, do you know, and really have to understand it and be ready....And then you realise like the kids, like it comes to light what you're doing **as** you're doing it. And then when you go back and read then you say "God that's what it was"

> whereas it's kind of hard to imagine it in a theoretical framework as well, do you know? So I think you have to read the theory, go into it knowing that you're not exactly sure and then read it again and then you'll get it. (FIA/p.45-46)

This astute observation on the part of this teacher fits very well with Shulman's (1987) model of pedagogical reasoning and action. He suggests that the preparation that is engaged in prior to teaching is really a rehearsal for the act itself. Likewise in professional development the planning sessions, the professional readings, the demonstrations, the debates are all rehearsals. But as Shulman (1987, p.17) says and the teacher above recognised:

> Pedagogical reasoning is as much a part of teaching as the actual performance itself. Reasoning does not end when actual teaching begins. The activities of comprehension, transformation, evaluation and reflection continue to occur during active teaching. Teaching itself becomes a stimulus for thoughtfulness as well as action.

10.3.5 Building capacity

Another key component of a professional learning community is supportive leadership. Hord (2008, p.12) suggests such leadership must involve 'sharing power, authority and decision-making....Teachers become actively involved in the organisation ...They plan precisely what they will learn, how they will engage in their learning and the resources needed'. By the end of the study teachers were very sure about the supports that needed to be put in place to sustain the change process amongst themselves and to up-scale across the school. They felt that the kinds of support and activities that they had experienced were important for the rest of the teachers in the school to also experience.

Firstly, teachers felt that the school needed to invest in a professional library for all staff that included books with lots of vignettes of classroom practice, since such books had helped them to see how they might implement new approaches in their own classrooms. As the kind of teaching engaged in was of a facilitative and scaffolded nature, teachers had to learn a whole new way of interacting with children and they found the professional reading invaluable in this respect, particularly in

implementing the writing workshop which was the first element of change in the first year of the programme and the comprehension strategies in the first term of the second year:

> I think, the writing methods were really useful, I mean we concentrated on that so much in the beginning. I think just the dialogue that she gives (Lucy Calkins) is really teacher friendly and useful. (FID/p.1)

> Maureen McLaughlin's book was very good... She'd be talking of the different steps, that she'd follow. So it's very good to see a lesson in an actual lesson plan, you need to see that really... I found that very good for planning. Also when I was reading through it because even though you'd be asking yourself questions - like how am I going to do that or how is that going to work, the book was answering it for you as you went along. The Lucy Calkins book is good as well for the writing workshop because writing's actually quite hard to teach I think, it is a very tricky business and you do need a lot of help there. (FIB/p56).

Secondly, all teachers reported that the combination of in-class demonstrations and the viewing of DVDs had helped them change their practice and these 'vicarious experiences' (Bandura, 1995, p.3) had helped them envision how they might operationalise changes in their own classrooms.

> The demonstrations for me, they helped a lot because I think to see it.... To read about it, it does help but it's not as concrete as seeing... Like I was saying even watching the DVD a second and third time, the language used because it's something new, because it's something not familiar you know... In the book even when you're reading it a few times it doesn't go in as well as watch someone do it. Yeah that would've been of most benefit for me. (FIC/p.44)

> Yeah, 'cos well how do you do the writing workshop through hearsay you know? (FID/p.66)

Thirdly, teachers were of the opinion that there needed to be one person at the helm of the change process in the school in the coming years. Again this thinking is in line with research on school change (Taylor et al., 2002; Lipson et al., 2004; Lein et al., 1997) and it is also a key part of the change process in the standards-based reform model outlined by Au, Raphael & Mooney (2007).

> If the initiative is to work, any initiative in any school you know somebody needs to take ownership of it and after that it could be one teacher. Like I mean I would see one teacher assigned, a possibility maybe, one teacher who's maybe in learning support, who maybe isn't in learning support. I don't know, it's up to the Principal maybe to decide these matters, but somebody needs to be there in situ in the school as a watch dog always kind of maybe handing out, kind of giving direction. You know we need that as well, as good and all as it is for you coming in Eithne. We need somebody there on the spot. (SET2LSC/p.8)

Re-designating one post within the school for this kind of leadership role is an interesting proposition and one that could possibly be facilitated by re-assigning one of the SET team to the role particularly as cohesion between learning support and classroom programmes was a key feature of the initiative. Alternatively, another way to facilitate this role would be to put a classroom teacher in the role by turning 4 classes into 3, perhaps at the Second class level. The classes in the school were typically 15 to 1 under the Breaking the Cycle initiative. By combining classes, class sizes would still be relatively small at 20:1. However, teachers understandably would not be in favour of increasing class sizes!

Having the right person at the helm is a critical consideration given the demands of the position. It would require a person with excellent pedagogical content knowledge who could communicate well with staff and who could build trust which would be vital to sustaining inquiry and reflection on teaching skills. It would require an understanding of pace and of each teacher's strengths and preferences, when to introduce something new in order to keep momentum going and when to exert pressure and when to stand back. As one teacher pointed out in the final interview: 'I thought we made a mistake in the start in that we engaged in the writing workshop for too long without developing it'. That was partly due to having a person from the outside driving the change and also in the first few months everybody was trying to adapt and get comfortable. Having someone on the inside who knows each teacher well and who is there on a day-to day-basis would make this a less likely occurrence.

The person appointed to the position would need to be comfortable demonstrating lessons, observing lessons and giving helpful feedback to staff in helping them to move their practice forward and refine their approaches. It was interesting that teachers welcomed the idea of another teacher not only demonstrating

for them but also giving feedback on their teaching. This would be a major departure from the norm in an Irish context:

> I think a school like ours should have an on-site reading teacher whose job is to co-ordinate the teachers who are involved in this particular literacy programme and guide them through it and give them feedback and possibly maybe watch some of their lessons, just as a scaffold for teachers to make sure that they keep up, keep the programme running.... (FID/p.72)

Having someone watching over the programme was something that all teachers wanted. Even when one recognises the need to change, it is hard to leave old habits behind and work toward adapting to new ways, which may require a lot of learning and more work. As one teacher put it: 'you know the mixture of support and also knowing that you have to do it as somebody is coming back, whereas as a teacher with the best will in the world you'd say "oh yeah I'll do this" and then it's gone! (FIA/p.29). Having an in-school co-ordinator would ensure continuous growth and renewal in the change process and help to drive it forward.

10.3.6 Adopting a research stance

Thompson and Zeuli (1999, p.342) suggest that real change involves 'transformational' learning leading to 'changes in deeply held beliefs, knowledge and habits of practice' and that in order for that to occur teachers need to be involved in a cycle of continuous improvement by identifying new issues that arise, engaging actively to understand them, deciding how to act to address the challenges, reflecting on the effectiveness of the solution and going through the whole process again as a new problem presents itself.

Teachers had already adopted a research stance to the change process and had identified how they would re-sequence some things and investigate how to further develop other aspects e.g. work on the development of children's language acquisition and further involve parents in the work. Teachers had recognised that the small amount of parental involvement that had been initiated was very beneficial. For example teachers reported that parents were now engaging more freely with the school and they wanted to reach out and have an effect on whole families:

> In an area like this that includes parental attitudes and you know the ease at which the parents might now be engaging with the school, you know?...I think the parental involvement of every day had such an impact if we'd had more it would have had an even greater impact and would have reached families rather than just the kids. (FIA/p.35/52)

They had plans to build upon the work already done (fluency training) and to teach parents about the phonics programme and the strategy work. One teacher had taken on the job of researching how best to do this as part of the academic work for the certificate/diploma. She had designed a manual for parents and planned to pilot it at the start of the next school year by inviting parents into the school during the school day to see the programme in action and to see the children demonstrate the various strategies for them. Plans were also afoot to open the library to parents so they could borrow books to take home to read and learning support teachers were considering releasing teachers to meet with parents to show what kind of books were suitable for particular age-groups and how to interact with the child during the reading. Another area that teachers had identified as a priority was the re-development of the school plan for English to take account of the changes that had already occurred and to incorporate the new changes as the initiative spread school-wide. They recognised the need to document the changes and to update yearly as the change process took hold, in order to bring coherence to the literacy programme across all classes.

So, while much had been achieved, there was now a change agenda set by the teachers and one which would require sustained effort over time to consolidate and build upon these initial successes. The impetus for these changes had come about not only from the changes teachers had observed in relation to children's motivation and engagement but also from the success they had as teachers in enhancing children's achievement. The changes in children's achievement are presented in the next chapter.

11 CHANGES IN ACHIEVEMENT

A range of tests was administered throughout the study to track children's achievement in literacy. The overall changes in achievement during the two years of the study are presented in this chapter, which is divided into eight sections. The schedule of testing is summarised in Table 11.1. Firstly, gains in reading attainment as measured by the Drumcondra Sentence Reading Test (DSRT) and the MICRA-T (both standardised tests of reading achievement) are presented. Second, children's progress on a range of skills considered essential in the early years of development, and measured by the Observation Survey of Early Literacy Achievement (OS) are presented. Third, changes in performance on the Drumcondra Primary Spelling Test (DPST), administered in year two of the study, are examined. Fourth, results of children's progress in phonics knowledge, as assessed by the Nonsense Word Test (specially constructed for that purpose by the researcher) are offered alongside correlations with performance on the DSRT and the DPST. Fifth, changes in children's writing achievement, as measured by applying the Criterion Scale to samples of writing collected at four points during the study, are presented. Gender differences in achievement are discussed in section six. Section seven examines results in relation to the level of support children were offered throughout the study in addition to classroom instruction. Finally, the differences in achievement between the children in the lowest and highest quintiles at the end of the study are discussed.

Table 11.1 Testing schedule

Test	January First class	June First class	February Second class	May/June Second class
DSRT	1A	1B	2A	2A
OS	Letter ID Word Reading Hearing/ Recording Written Vocabulary Text Level	 Word Reading Hearing/ Recording Text Level	 Written Vocabulary Text Level	
MICRA-T		1A		2A
Nonsense Word		0-45	0-65	
DPST			2A	2B
Writing Sample	Yes	Yes	Yes	Yes

11.1 Achievement Data: DSRT and MICRA-T

11.1.1 Comparison of average achievement: DSRT at the beginning and end of the study

As can be seen from Table 11.1, the DSRT was administered at four points during the study. An overall comparison of performance between January First class and May Second class was made using a matched-pairs t-test. Firstly, the correlation between the two levels of the tests was computed and was found to be significant (r = .611) (Table 11.2). Secondly, the overall mean scores for the group (all four participating classes combined) were calculated (Table 11.3). It can be observed that the mean increased by 16.1 points from 81.5 to 97.6. When converted to percentiles this represents a change in average achievement from the 10th percentile to the 42nd percentile.

Table 11.2 Correlation between standard scores: DSRT January First class and May Second Class

	DSRT Standard Scores	N	Correlation	Sig.
Pair 1	**January First class & May Second class**	53	.611	.000

Table 11.3 Overall mean standard scores, standard deviations and standard errors of mean: DSRT January First class and May Second Class

	DSRT Standard Scores	N	Mean	Std. Dev.	Std. Error Mean
Pair 1	**January First class**	53	81.5	11.56	1.59
	May Second class	53	97.6	13.31	1.83

Next, the percentages of children performing at each of the ten percentile intervals were examined for changes between the testing periods. These changes are illustrated in Figure 11.1, which graphs changes in achievement over the four testing periods in the study. Firstly, it can be observed the percentages performing at or below the tenth percentile reduced from 50% to 11%. Additionally, there were only 4% of children performing above the 60th percentile at the start, whereas at the end of the study 33% were performing above this level. The LANDS study (DES, 2005b) reported that only 6.2% of pupils in that study were performing above the 80th percentile, indicating very low levels of achievement for those children. At the end of the

current study, 20% of children were now performing above the 80th percentile. Similarly, in the Reading Literacy in Disadvantaged Primary Schools Study (Eivers et al., 2004), percentages of pupils performing at or below the 10th percentile and above the 90th percentile were reported for First, Third and Sixth classes both nationally and across disadvantaged schools. Between 27-30% of pupils in designated disadvantaged schools were performing at or below the 10th percentile on the Drumcondra Sentence Reading Test compared to 10% of their peers nationally, while 3% performed above the 90th percentile compared to 10% nationally (Eivers et al. 2004). Clearly, the gains made by the children in this study demonstrate a real change in achievement when compared with these figures.

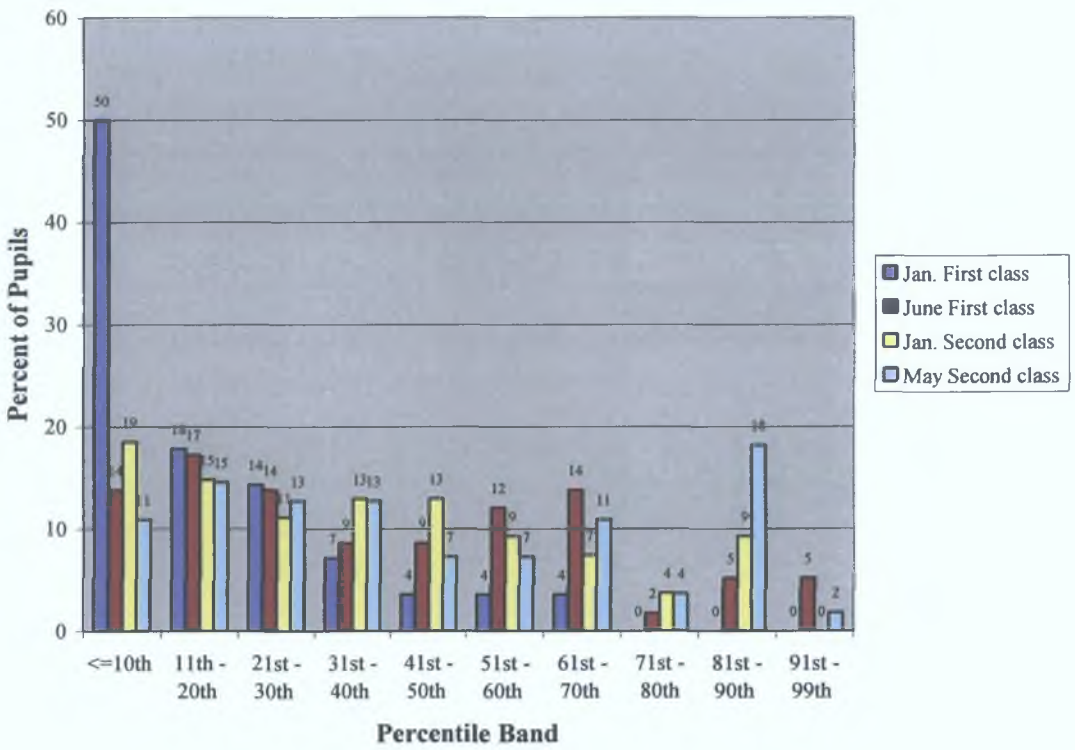


Figure 11.1 Percentile bands DSRT across four testing periods: January First Class-May Second Class

Next, a paired samples t-test was run to see if the gains made across the study were statistically significant. As indicated in Table 11.4, the difference between the January First class and May Second class mean scores is statistically significant ($t(52) = 10.217$, $p. <.001$). An effect size was computed to describe the overall impact

of the intervention. Using Cohen's d, an effect size of 1.29 was obtained which can be interpreted as 'large' (Cohen, 1988).

Table11.4 Paired t-test to examine statistical significance in gains between January First class and May Second class

Pair 1 DSRT Standard Scores	Paired differences					t	df	Sig. 2-tailed
	Mean	Std. Dev.	S.E.M.	95% confidence				
				Upper	Lower			
DSRT 1A - DSRT 2A	-16.2	11.55	1.59	-19.39	-13.02	-10.217	52	.000

One can also observe from Figure 11.1, that, between January and June of First class (year one of the study), major reductions were made in the numbers performing below the 10th percentile and 5% were performing above the 90th percentile. (see Appendix F for additional tables describing achievement during this period). There is a small decrease in the numbers performing between the 91st and 100th percentile in June of Second class but there is a large increase in the numbers of children (double) performing between the 81st and 90th percentiles. Three of the children in this band were performing at the 90th percentile.

In relation to achievement between June of First class and February of Second class, there were no significant gains made on the DSRT (performance for each individual class can be seen in Appendix F). While the overall mean score dropped by 1.4 points during this period (see Table 11.5), this is not statistically significant and illustrates that, overall, the children maintained the gains they had made in the first six months of the study. In contrast, significant gains were made in relation to writing achievement in the same time period and these are reported in section five below.

Table 11.5 Comparison of overall mean scores between June First class and February Second class

DSRT Standard Scores		Mean	N	Std. Dev.	Std. Error Mean
Pair 1	June First class	95.2	53	13.14	1.80
	February Second class	93.8	53	12.86	1.77

There are a number of possible explanations for the lack of growth on the Drumcondra Sentence Test between June of First class and February of Second class. One reason may be that over the summer months the children lost some of the gains they had made between January and June of First class and that it took them all of the first term to make them up again. This has been referred to as the 'summer slump' in the literature. The reading achievement of children from disadvantaged backgrounds declines over the summer months while the reading achievement of children from more advantaged backgrounds either remains stable or increases marginally (Allington & McGill Franzen, 2003; Cooper et al., 1996). This accumulates yearly and, when one factors in the large gap which already exists between children in disadvantaged schools and their more advantaged peers when they enter primary school (Lee & Burkham, 2002), children in disadvantaged schools leave primary school still substantially behind their more advantaged peers. A second possibility is that the level of vocabulary found on the DSRT in Second class posed a particular difficulty for children. In January of Second class, teachers had identified that vocabulary acquisition was a difficulty for children who by now had developed their decoding skills (see section on Nonsense Word Tests and OS below) to a reasonable level but were still having trouble comprehending text, partly due to the level of vocabulary they were meeting outside the levelled texts which they had largely outgrown by this stage of the study. Following this observation from teachers, some professional development was provided on vocabulary instruction which focused on ways of structuring vocabulary work within reading and writing lessons and drawing on the work of Beck et al., (2002) and Blachowicz & Fisher (1996). In addition, after Easter of Second class, teachers began using Reciprocal Teaching strategies (Palinscar & Brown, 1984; Oczkus, 2003). They reported that the clarifying strategy had helped children to be more aware of words that they were unsure of and to check their meaning to help them understand what they were reading. At the end of the study, when asked if they would make any changes to the sequence of the change process, they indicated that, when they were beginning with a new class the following year, that they would put emphasis on this aspect of literacy development from the outset:

> It's not a criticism of the programme it's just that when I am doing it myself next year I'm going to kind of concentrate on the language and the phonics from the start. We couldn't have done it all at the start... because it would have killed us....because everything was new and you didn't want to feel like you were being overloaded with stuff (FIB.p58).

However, significant gains as determined by a matched pairs t-test (see Appendix F for statistical tables for this period) were made on the DSRT between February and May of Second class. During this period, the mean standard score increased by almost 4.5 standard score points. When the mean scores are transformed into percentile ranks they indicate a change from the 35th to the 47th percentile (a mean score of 99 converts to 47th percentile). This differs slightly from the figures presented earlier for the end of study (Table 10.3) as the numbers being compared at both points differ (January First class to May Second class, n=53; February Second class to May Second class, n=52). An effect size was computed to describe the impact of the intervention for these 3 months. Using Cohen's d, an effect of 0.35 was obtained, which can be considered small to medium (Cohen, 1988). The gains made during this period may have been partly due to the increased attention during guided reading sessions to vocabulary and the orchestration of multiple comprehension strategies, which is seen to be more effective than using just one at a time. As Duke and Pearson (2002, p.207) suggest: 'teaching what we call collections or packages of comprehension strategies can help students become solid comprehenders of many kinds of text'. Teachers reported that children were noticeably more persistent in monitoring their comprehension and in identifying unknown words (see chapter nine for a discussion on changes in pedagogy and chapter 10 for teacher perception of the changes in children).

11.1.2 Differences between class groupings: DSRT throughout the study

Differences between class groupings throughout the study were explored. The changes in mean scores for the four classes over the four testing periods are presented in Table 11.6. It can be observed that, for Class A, there was a gain of 21.9 points. When the means are converted into percentiles one sees a move from the 6th percentile to the 47th percentile, indicating a large average gain in achievement. The standard deviation widened considerably from 10.39 to 16.25 indicating a broad

spread of achievement in this class. In fact, there were three children in this class who made slow and uneven progress and there was one child who achieved the highest score on the test moving from the 6th to the 98th percentile. There were a further three children in this class who also made large jumps in achievement (one moved from the 4th to 82nd percentile; a second from the 1st to 63rd percentile and a third moved from the 13th to the 82nd). These changes will be discussed further in the final section in this chapter which explores the differences between low and high achievers at the end of the study.

Progress in Class B was more even. The change in mean scores from the beginning to the end of the study represent a gain of 19.6 points, which, when translated into percentiles, shows a change from the 17th percentile to the 63rd percentile. In contrast to Class A, the standard deviation narrowed from 10.88 to 8.5 indicating less variation achievement by the end of the study. When individual achievement in this class was examined across the percentile ranks there were no children performing at or below the 20th percentile and just one performing below the 30th percentile by June of Second class. It is interesting to note that five of the children in this class, representing 42%, were achieving above the 75th percentile, though there were none performing above the 90th percentile. This was also a relatively stable class with no discipline problems and there were no children with documented learning difficulties, unlike two of the other classes in the study.

Table 11.6 Minimum scores, maximum scores, mean achievement scores and standard deviations: DSRT across four testing periods, by class level

Group	Testing Period	N	Min.	Max.	Mean	Std. Dev.
Class A	DSRT SS January First class	14	62	101	76.5	10.39
	DSRT SS June First Class	14	76	121	96.6	12.70
	DSRT SS February Second Class	14	74	114	94.3	14.26
	DSRT SS May Second Class	14	72	131	99.0	16.25
Class B	DSRT SS January First class	12	60	105	85.8	10.88
	DSRT SS June First Class	12	87	121	102.4	9.19
	DSRT SS February Second Class	12	85	116	99.5	9.44
	DSRT SS May Second Class	12	89	116	105.4	8.50
Class C	DSRT SS January First class	13	71	103	82.7	12.74
	DSRT SS June First Class	13	79	121	96.9	12.57
	DSRT SS February Second Class	13	79	119	95.6	10.99
	DSRT SS May Second Class	13	82	119	98.5	12.39
Class D	DSRT SS January First class	12	69	108	84.1	10.77
	DSRT SS June First Class	12	66	115	86.4	13.43
	DSRT SS February Second Class	12	64	114	86.3	13.34
	DSRT SS May Second Class	12	74	119	91.0	11.84
All classes	DSRT SS January First class	56	60	108	81.3	11.34
	DSRT SS June First Class	58	66	121	94.8	12.83
	DSRT SS February Second Class	53	64	119	93.77	12.85
	DSRT SS May Second Class	55	64	123	97.24	13.95

A large overall gain in average achievement can also be observed for Class C with an increase of 15.1 points between the mean at the start of the study and that at the end. When translated into percentiles this represents a shift from the 9th percentile to the 46th percentile. There was also a minor narrowing of the standard deviation in this class - from 12.74 to 12.39.

Class D made the smallest gains overall. The mean scores changed from 84.1 to 91.0 indicating an increase of just 6.9 points. When converted to percentiles this represents a change in overall achievement from the 13th percentile to the 27th. Also, like Class A, the standard deviation in this class widened from 10.8 to 11.8. The standard deviation was also affected by the fact there was one child in the class who had much higher achievement than any of the others. This child began the study at

the 70th percentile and ended at the 90th. About half of the class were reading below the 20th percentile at the end of the study. There were a variety of possible reasons for the lower gains in achievement in this class. Firstly, compared to the other three classes, there was a high concentration of children (just over half) from very troubled and challenging home backgrounds, as acknowledged by the class teacher: 'The weak ones in my room all seem to be coming from particular home situations, you know, so it's hard' (MID/p.7). Many studies have documented the negative effect of high concentrations of highly disadvantaged children in the one location which can seriously depress achievement scores (Puma, 1997; Cosgrove et al., 2000; Snow, Burns & Griffin, 1998; Coleman et al. 1966, cited in Puma, 1997). Secondly, the range of needs within this classroom made it a difficult task to maintain discipline and a concentrated effort on learning. One child in particular was very troubled and exhibited aggressive and disruptive behaviour on a regular basis. In response to question 16 on the Questionnaire, administered at the outset of the study, which asked teachers to list the factors that they considered affected their teaching of reading and writing, the classroom teacher indicated that discipline had a moderate to large negative effect as did lack of parental involvement. It is worth remembering that this class did not make statistical gains in achievement until the last four months of the study (the mean increased from 86.4 to 91.0 between February and June). This corresponded with an improvement in the overall discipline of the class, which was observed by the researcher during this period (Obs.3, June, Second class) and was also reported by the class teacher in the final interview. The change in discipline also coincided with the introduction of non-fiction reading material and an instructional emphasis which encouraged children to use a number of comprehension strategies simultaneously as they worked in small groups and pairs. In relation to activities, children had choice and control over what they chose to do as a follow-up to reading (see chapter 9, 10). The teacher in this class reported that engagement in reading had soared in this period and clearly, the characteristics of engaged readers (highly motivated, socially interactive and with a range of strategies at their disposal) as outlined by Guthrie et al.'s (1996, 1999) work were in evidence. Finally, when the mean attendance rates for each class were calculated, this class had an average of one third more days missed than any of the other three classes. Two of the children missed over 40 days of school and another two missed more than 20 days. This ongoing disruption may have impacted on the pace and continuity of instruction

within the class. These challenging circumstances taken together may have had a cumulative effect on the average achievement of this class.

Finally, a matched pairs t-test was run to see if the differences in achievement across classes were statistically significant (Table 11.7). Because the alpha level was reduced to .0125, we must conclude Classes A, B and C made significant improvement over the course of the intervention, while the difference in Class D cannot be considered significant (after adjustment). Finally, effect sizes for the study were calculated using Cohen's D and are shown in Table 11.8.

Table 11.7 Paired t-test to examine statistical significance in gains across the four classes between January First class and May Second class

Pair 1 DSRT Standard Scores 1A - 2A	Paired differences					t	df	Sig. 2-tailed
	Mean	Std. Dev.	S.E.M.	95% confidence				
				Upper	Lower			
Class A	-22.5	14.60	3.90	-30.93	-14.07	-5.764	13	.000
Class B	-19.6	6.50	1.88	-23.71	-15.45	-10.435	11	.000
Class C	-15.1	8.80	2.27	-19.94	-10.20	-6.635	14	.000
Class D	-6.9	8.88	2.56	-12.56	-1.28	-2.699	11	.021

Table 11.8 Pre-post study effect sizes for each class

	Cohen's d	Size of Effect
Class A	-1.69	Large
Class B	-2.01	Large
Class C	-1.20	Large
Class D	-0.61	Medium

Gain scores for each child were also calculated from the beginning of the study to the end and are presented in Figure 11.2 (Gain scores for the first year of the study are presented in Appendix F). Figure 11.2 shows that almost all children made positive gains. It can be observed that at the end of the study there were three children with negative gain scores, all of which were less than 10, putting them within the error limits of the test. However, the three children with negative gain scores were also children with negative gain scores in years one and two, and were from the same

class. Table 11.9 shows the outcomes on the DSRT for children with negative gain scores in year one, and how they fared in year two.

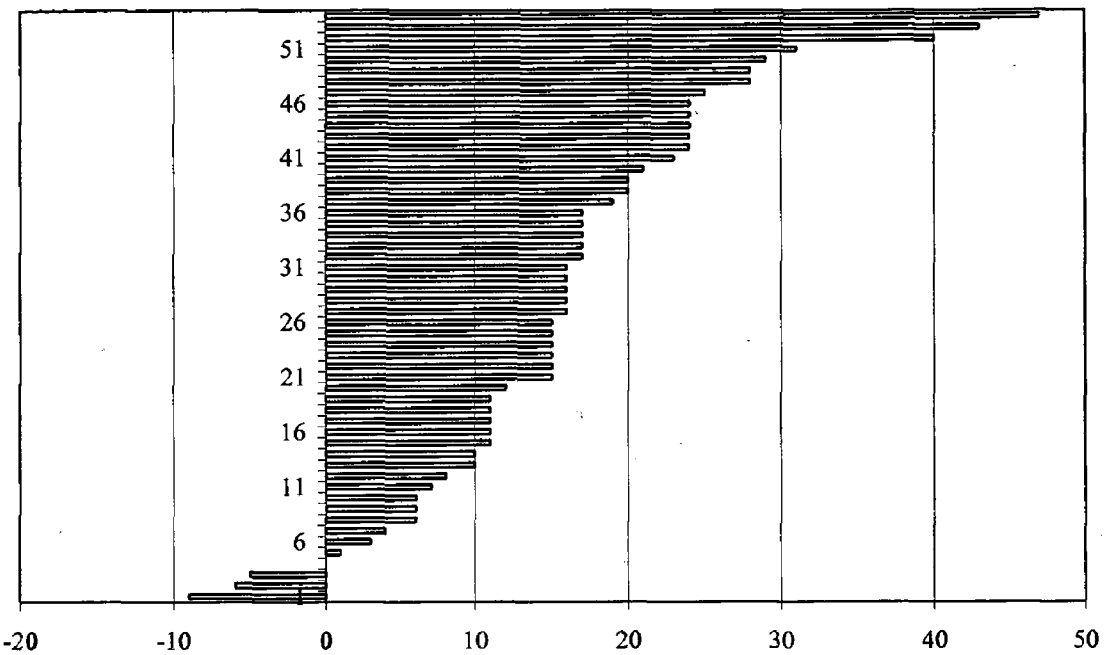


Figure 11.2 Individual gain scores on DSRT: January First class-May Second class in standard score units

Table 11.9 Children with negative gain scores in year one: DSRT SS at four points and gains from beginning (percentile ranks in parentheses)

Children	DSRT SS Jan 1st	DSRT SS June 2nd	Gains Year 1	DSRT SS Feb 2nd	DSRT SS June 2nd	Gains Year 2	Overall Gains	Overall Attendance Days Missed
Child A RR/RES	88 (21)	84 (14)	-4	79 (8)	83 (13)	+4	-5	-27
Child B LS2	89 (24)	87 (19)	-2	89 (24)	99 (47)	+10	+10	-35
Child C LS1	83 (13)	66 (1)	-17	67 (1)	74 (4)	+7	-9	-36
Child D RES2	83 (13)	71 (3)	-12	77 (6)	83 (13)	+6	0	-31
Child E RES2	79 (8)	74 (4)	-5	75 (5)	ABS	ABS	ABS	-46
Child F LS2	88 (21)	79 (8)	-9	64 (1)	82 (12)	+18	-6	-4
Child G LS1	96 (39)	79 (8)	-17	91 (27)	97 (42)	+6	+1	-7

Codes: LS1=learning support for one year; LS2 Learning Support for two years; Res2= Resource for two years; RR= Reading Recovery; RR/RES: Reading Recovery year one and resource year 2

The children with negative gain scores at the end of First class (Table 11.9) were children with low achievement at the start of the study who had been offered support (based on the MIST scores) in the form of Reading Recovery, resource teaching or learning support. Child A was in the Reading Recovery group for Traveller children. In most cases these children received support over both years. Two of the children ended the study reading at the 42nd and 47th percentile respectively, 3 below the 20th and one below the 4th. It can also be observed that 5 of the 7 children had missed a large number of days from school which may have contributed to their low achievement levels. Children C-G were all in class D, further emphasising the impact of the challenges raised above in relation to this class. While attendance was not found to correlate with achievement for the whole cohort, clearly for the children in this grouping, the combination of factors together had a cumulative negative effect on achievement. These cases will be discussed further in the sections below on outcomes for children with varying levels of support and those with high and low achievement at the end of the study.

11.1.3 Comparison with the MICRA-T

During the study the MICRA-T (2004) (a standardized test of reading achievement, see chapter 5 for description) was administered in June of First class and June of Second class as it was the test used annually by the school to track achievement. Mean standard scores and standard deviations for each test administration are presented in Table 11.10. A matched pairs t-test was run to ascertain if there was a significant difference in performance between end of First and end of Second on each test separately. The difference on the Sentence Reading Test (+2.2) was not statistically significantly ($t = -2.002$, $df = 54$). Similarly, the difference on the MICRA-T (-2.3) was not significantly different ($t = 1.882$, $df = 54$). Of course, gains made during First class are factored in to the end of First class scores on both tests.

Table 11.10 Overall comparison of performance on DSRT and MICRA-T

		DSRT		Micra-T	
	N	SS	Std. Dev.	SS	Std. Dev.
June, First Class	55	95.0	12.82	98.8	13.75
June, Second Class	55	97.2	13.95	96.5	13.75

The same coefficient ($r = 0.88$, $p. < .01$) was obtained when the MICRA-T was correlated with the DSRT in at the end of First class and at the end of Second. The correlation between the MICRA-T at the end of First and end of Second was 0.77 ($p. < .01$), while that between the DSRT at the end of First and Second was .81 ($p. <.01$). This suggests that the two tests serve broadly similar functions.

11.2 Performance on the Observation Survey (OS)

The OS (Clay, 2002) was administered at various points throughout the study (see Table 11.1, p.1, above). It had a dual purpose, as it allowed for children's progress to be monitored on a number of skills and also provided helpful diagnostic information that teachers could utilise to inform planning and teaching. Changes in achievement in First class for the whole cohort and specific groups within the cohort, on three of the sub-tests, are shown in Table 11.11.

Table 11.11 Comparison of scores on the OS between January First class and June First class

OS	N	Max.	Mean	Std. Dev.
All Pupils				
Hear and Record Sounds January First Class	55	37	31.4	7.16
Hear and Record Sounds June First Class	57	37	34.4	3.71
Text Level March First class	58	30	10.9	6.13
Text Level June First class	57	30	16.0	5.30
Clay Word Test January First class (max 15)	40	15	10.2	4.02
Duncan Word Test January First class (max 23)	15	23	18.7	3.81
Duncan Word Test June 1st class (max 23)	58	23	21.5	3.39
Resource				
Hear and Record Sounds January First Class	3	37	27.7	11.37
Hear and Record Sounds June First Class	3	37	29.7	6.51
Text Level March First class	4	24	11.8	8.58
Text level June First class	3	25	17.3	7.09
Reading Recovery				
Hear and Record Sounds January First Class	6	37	33.0	3.41
Hear and Record Sounds June First Class	6	37	33.7	3.56
Text Level March First class	6	16	12.8	2.48
Text level June First class	6	22	18.5	2.07
Learning Support				
Hear and Record Sounds January First Class	15	37	30.4	8.70
Hear and Record Sounds June First Class	15	37	33.4	5.04
Text Level March First class	16	16	7.1	4.75
Text level June First class	15	21	11.9	5.79
No Support				
Hear and Record Sounds January First Class	29	37	31.8	6.80
Hear and Record Sounds June First Class	31	37	35.4	2.19
Text Level March First class	30	30	12.7	6.35
Text level June First class	31	30	17.3	4.52

Overall, children made gains on all sub-tests. In relation to the Hear and Record Sounds sub-test, one third of children achieved the maximum score of 37 in June of First class, which is an improvement on 11% in January. A score of 22 was achieved by the lowest performing child in June of First class, compared with a score of 3 by the lowest performer in January. To measure sight vocabulary all children were tested using the Duncan Word Test in June. Almost 30% of children achieved the maximum score of 23 and a further 26% performed above the mean, indicating a ceiling effect. Only ten percent of children had scores below 20. Of these, three were children attending Reading Recovery (with scores of 19,19, 17 respectively) and

three were children attending Learning Support (5, 6, 17). The children with the lowest scores (i.e. 5, 6), both had extremely poor attendance records, missing 43 days and 53 days each in First class alone. One of these children was retained in First class and the other missed 22 days of school in Second class.

Positive changes also occurred in the level of text reading achieved by the children, as can be seen in Figure 11.3. The mean score for all pupils increased by approximately five levels between January and June of First class. The mean score increase in levels was above 5 for children attending Reading Recovery (5.7) and Resource (5.5) (see Table 11.11). In the case of the Resource group, the mean is a little inflated due to the high level achieved by one child. The mean increase for the learning support group is under 5 (4.8) and this is related to the fact that there was one child still reading at level one. The highest minimum level was achieved by the Reading Recovery cohort (17) and the minium levels for each of the other groups were as follows: all pupils (1); resource children (11); and children with no support (9).

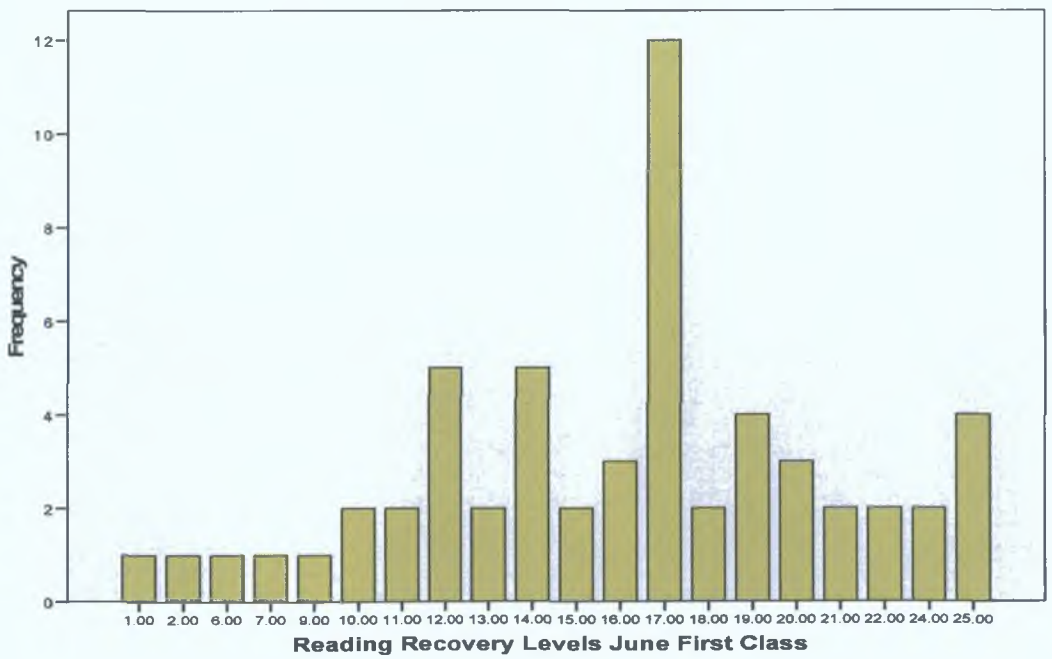


Figure 11.3 Levels of text reading (OS) June First class

By February of Second class, almost half of the children (46%) had graduated from the levelled texts and were now reading a wide range of quality fiction and non-fiction appropriate to their instructional level. The other half of the group still needed

the support of the levelled texts and these children were reading between levels 7 and 22. The spread of levels is illustrated in Table 11.12.

Table 11.12 Text levels: February Second class

Level	Number of children
7	1
18	5
19	0
20	8
21	9
22	7
Above Level 22 (reading fiction /non-fiction)	23

The child reading at level seven had by the end of the study missed 75 days of school. In addition, when this child was in school the teacher remarked on the fact that tiredness was a factor as the child stayed up late at night: 'He gets very frustrated very easily and he'll stay with you for a while and then he doesn't get enough sleep, that's where the frustration I think comes from, he is upset already before he comes to school, he doesn't sleep' (MIC/p.23). This child was having difficulty across a range of aspects of literacy presenting with very low scores on all tests administered. While it is clear there was a combination of factors at work here, further investigation would be warranted to discover if there was also an underlying specific learning difficulty.

The written vocabulary sub-test was given at two points to see if there was an increase in the number of words the children could write independently and also to see if there was a difference in the range of words written. A comparison was made with the results of the written vocabulary test in March of First class and March of Second class. As Table 11.13 illustrates, the mean number of words written correctly increased by 38. A paired sample t-test ascertained that this change in achievement was significant ($t=-10.517$, df (47), $p<0.05$). The standard deviation also increased (indicating greater variation among pupils on this measure).

Table 11.13 Comparison of mean scores on OS writing vocabulary sub-test between January First class and February Second class

OS: Writing vocabulary sub-test	N	Max.	Mean	Std. Dev.
All Classes				
January First class	55	80	29.7	15.72
February Second class	52	108	67.8	24.15

The four children attending resource teaching continued to have lower scores than their peers. There was wide variation in their scores: 17, 35, 51 and 75, respectively. While Reading Recovery was not offered in year two, the scores of the original Reading Recovery children were examined for comparison. Their scores remained largely unchanged from the first year indicating that, while the volume of writing they produced initially was higher than for other groups, they did not show an increase in Second class, once the individual support they had received in RR had been discontinued, but they did maintain their gains. Not surprisingly, there was a large difference between the mean scores of the children in learning support for one year versus two years (79.5 and 57.8, not shown in Table 11.13) - a difference of almost 22 points.

In terms of the range of words written by the children, there were marked differences between the two time periods. There was evidence of explicit vocabulary instruction (as noted earlier) transferring into these lists and it was apparent that children had internalised these words and were able to spell them correctly. Teachers had been systematically teaching a list of words each week derived from the reading material children were engaged in. Figures 11.4 to 11.7 show examples of the kinds of words children wrote at the start of the study and those written in the middle of Second class. There was evidence of these words being used in context in children's writing also (see Section on writing below).

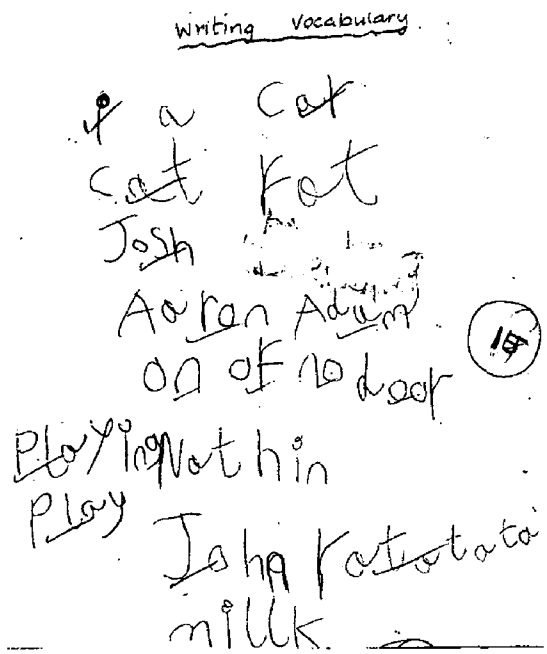


Figure11.4 Baseline sample written vocabulary

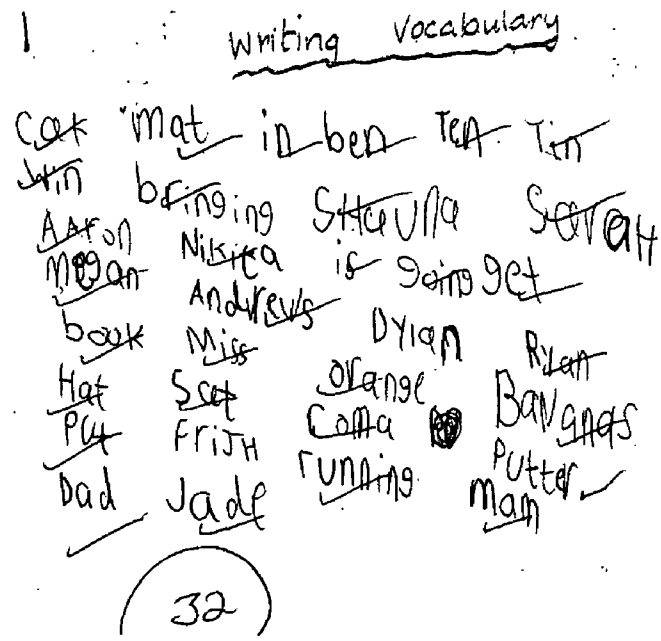


Figure 11.5 Baseline sample written vocabulary

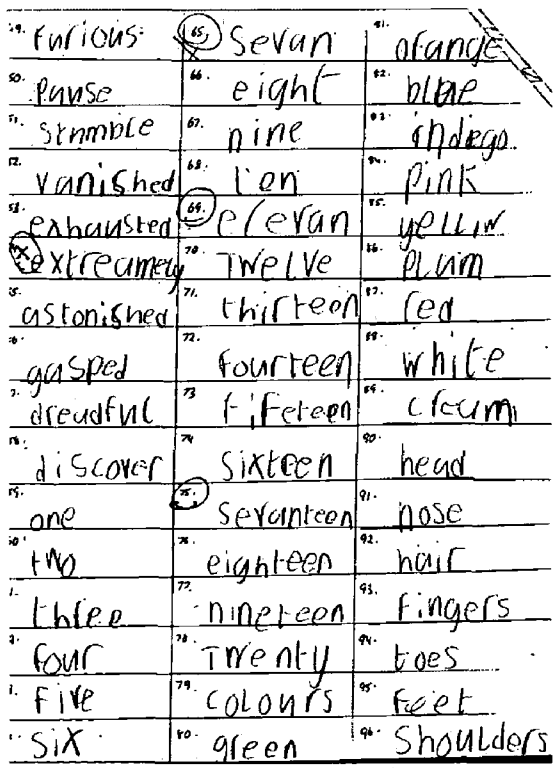


Figure 11.6 March, Second Class: Sample Written Vocabulary

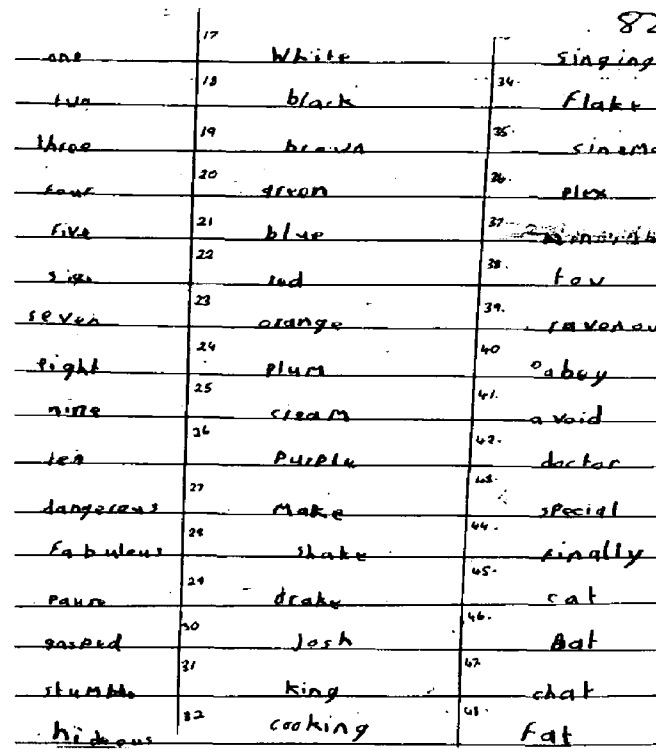


Figure 11.7 March, Second Class: Sample Written Vocabulary

11.3 Achievement on the Drumcondra Primary Spelling Test

Form 2A of the Drumcondra Primary Spelling Test (DPST) was administered in February of Second class and Form 2B in June to examine growth in spelling during this time period. Details of the test can be found in chapter five. Comparisons of achievement at these points in time can be found in Table 11.14. In Second class, standard scores ranged from 67 to 132, translating into percentile ranks of 1 and 98, illustrating the wide spread of achievement in spelling in the group.

Table 11.14 Comparison of overall mean standard scores on the DPST between February (2A) and June (2B) Second class

DPST Standard Scores	N	Min.	Max.	Mean	Std. Dev.
2A	55	68.00	117.00	93.6	13.68
2B	54	67.00	132.00	100.6	15.23
Valid N (listwise)	54				

Figure 11.8 illustrates how achievement changed across the ten percentile ranks. The percentages of children performing at or below the 30th percentile reduced from 56 to 33 and the percentages performing above the 70th percentile increased from 22 to 39. Thirteen percent above the 90th compared with no child above this level in February. The mean achievement for the group improved from the 32nd percentile to the 50th percentile, indicating comparability with national norms by June. As indicated by the paired sample t-test, the overall gain of 6.8 points was statistically significant (Table 11.15).

Table 11.15 Test of significance between achievement on the DPST between February and June Second class.

DPST Standard Scores	Paired differences					t	df	Sig. 2-tailed
	Mean	Std. Dev.	S.E.M.	95% confidence Upper	Lower			
Pair 1 2A – 2B	-6.8	6.17	.84	-8.51	-5.15	-8.135	53	.000

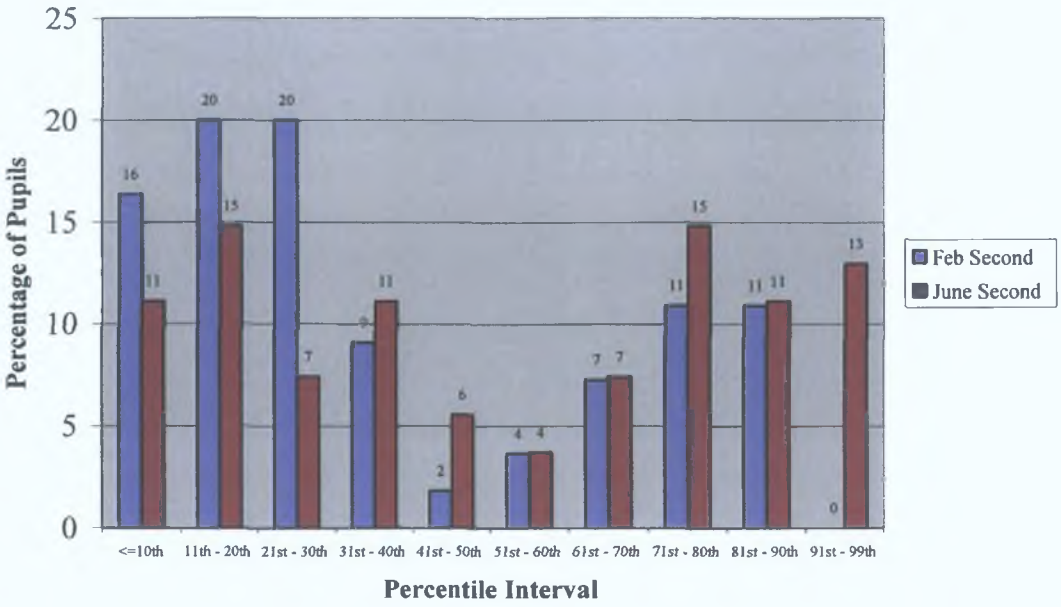


Figure 11.8 Percentages of pupils achieving at each of several percentile intervals on the DPST between February and June of Second class.

Mean scores for each class on the DPST are presented in Table 11.16. The largest gain (11.2 points) was made by Class A and the smallest (4.3) by Class C. In Class B the standard deviation narrowed and, on examination of the results of individual children in this class, it emerged that one child was at the 30th percentile, two at the 47th and the remainder were all above the 75th percentile, indicating very high achievement. This may have been connected to the phonics instruction in this class. This teacher, as noted in chapter nine, had favoured the synthetic phonics approach over the analytic approach and had spent more time on it as a result. This may have impacted on these scores and on those reported below for the Nonsense Word Test.

Table 11.16 Mean scores, standard deviations, and minimum and maximum scores for each class: DPST between February and June Second class

Group	DPST Standard Scores	N	Min.	Max.	Mean	Std. Dev.
Class A	2A	14	80.00	114.00	94.6	11.62
Class A	2B	14	87.00	132.00	105.9	14.02
Class B	2A	13	89.00	117.00	106.1	11.24
Class B	2B	13	92.00	132.00	111.3	10.70
Class C	2A	16	68.00	112.00	88.5	13.59
Class C	2B	15	67.00	120.00	92.9	15.60
Class D	2A	12	73.00	104.00	85.8	8.99
Class D	2B	12	77.00	115.00	92.4	11.28

Finally, a set of four t-tests was run to ascertain whether each class had improved in performance between February and June. In order to control for the number of comparisons being made (i.e., four), and the possibility of identifying a significant difference when in fact the difference was not significant, a more stringent criterion of p. < .0125 (i.e., .05/4) was adopted. Gains were significant for Classes A, C and D this time. As Class B had a relatively high mean score in February (106) compared to the other three classes (A=94.6, C=88.5, D=85.8) there was perhaps less scope for a large change in performance. (Table 11.17)

Table 11.17 Test of significance of mean score differences between achievement on the DPST between February and June Second class.

Pair 1 DPST Standard Scores 2A - 2B	**Paired differences**					**t**	**df**	**Sig. 2-tailed**
	Mean	**Std. Dev.**	**S.E.M.**	**95% confidence**				
				Upper	**Lower**			
Class A	-11.2	5.00	1.33	-14.10	-8.33	-8.400	13	.000
Class B	-5.2	7.57	2.10	-9.81	-.65	-2.490	12	.028
Class C	-4.3	5.09	1.32	-7.15	-1.51	-3.294	14	.005
Class D	-6.6	4.74	1.37	-9.59	-3.57	-4.813	11	.001

Adjusted p.=.0125. Statistically significant gains for classes A, C and D.

Given the range in scores between classes in February, an Analysis of Variance (ANOVA) was used to determine if there was a statistical difference in achievement between the four classes. This established that there was a significant difference in spelling achievement between the classes at this point of the study ($F(3, 49) = 3.261$; $p. = 0.029$) (see Table 11.18). Multiple comparisons using the Scheffe post-hoc test were then made to compare differences between groups. Significant differences were found between classes B and C (diff = 17.6 in favour of B), and between B and D (20.2 in favour of B).

Table 11.18 ANOVA for differences between classes on DPST standard scores, February Second class

DPST 2A February Second Class	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1429.964	3	476.655	3.261	.029
Within Groups	7161.319	49	146.149		
Total	8591.283	52			

An ANOVA was also conducted to see if there was an overall difference in June. This established that there was again a significant difference between classes on the spelling test, ($F(3, 50) = 6.798$; $p. < 0.001$) (Table 11.19).

Table 11.19 ANOVA of variance between classes on DPST, June Second class

DPST 2B June Second Class	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3562.704	3	1187.568	6.798	.001
Within Groups	8734.334	50	174.687		
Total	12297.037	53			

p.<.05

Multiple comparisons using the Scheffe post-hoc test were then made to compare significance across groups (Table 11.20). As in February, Class B had a significantly higher mean score than Class C (diff = 18.4) and Class D (18.9).

Table 11.20 Scheffe post-hoc test to determine statistical differences between classes on the DPST, June Second class

Dependent Variable	(I) Group	(J) Group	Mean Difference (I-J)	Std. Error Mean	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
		Class A	5.45055	5.09068	.766	-9.2773	20.1784
DPST SS June 2nd	Class B	Class C	18.37436(*)	5.00831	.007	3.8848	32.8639
		Class D	18.89103(*)	5.29100	.009	3.5836	34.1984

* The mean difference is significant at the .05 level

11.4 Performance on Nonsense Word Test and Correlations with DPST/DSRT

A nonsense word test was also administered to children at two points in the study (June of First class and March of Second class) to see how they were responding to the classroom instruction in phonics (See Table 11.21). Classroom instruction was a mixture of both synthetic phonics (3 days a week) and analytic phonics (2 days a week). Given that the research base does not advocate one approach over another, both were utilised in this study (NRP, 2000; Torgerson et al., 2006). The Nonsense Word Test was constructed to reflect all of the phonic skills that the children would have encountered throughout the study. A sample test is included in Appendix G. Not surprisingly, children who were receiving support did not perform as highly as children who were not, as the Nonsense Word Test measures ability to use phonic knowledge to decode pseudo words and these children had exhibited difficulty with the letters and sounds of the language at the outset of the study.

Table 11.21 Nonsense Word Tests in June, First class and March, Second class

Nonsense Word Test	N	Max.	Mean	Std. Dev.	Mean % Correct
All Pupils					
June First class	55	44	21.1	13.51	32.46
March Second class	51	65	46.9	13.09	72.15
Resource					
June First class	2	44	24.5	27.58	37.69
March Second class	6	64	34.3	16.18	52.77
Reading Recovery year one					
June First class	6	41	15.0	19.06	23.07
Learning Support one year					
June First class	14	41	21.2	13.35	32.62
Learning Support 2 years					
March Second class	8	63	45.4	15.05	69.85
No Support					
Year one June First class	33	43	22.0	12.10	33.85
Year two March Second class	37	65	49.3	11.17	75.84

The range of scores is reported in Table 11.22. There were 65 items on the test. No child achieved a full score in June of First Class and one child did so in March of Second class. In this particular case, the child was learning English as a second

language and had received learning support for one year. Across each of the classes, there was one child who performed in the top end of the test achieving a score close to the maximum. It is interesting to note that the highest score in June of First class was achieved by a child in the resource group who was allocated resource teaching due to a speech and language disorder documented prior to beginning of school in Junior Infants.

Table 11.22 Range of scores on the Nonsense Word Test: June, First class and March, Second class

Nonsense Word Test	June First class		June Second Class	
Scores	Number children (55)	Percentage children	Number children (51)	Percentage children
61-65			11	21.6
51-60			12	23.5
41-50	8	14.5	13	25.5
31-40	8	14.5	8	15.7
21-30	8	14.5	6	11.8
11-20	16	29.0	1	1.9
0-10	15	27.3	0	0

In June of First class, more than half of the children (29) were performing at the lower end of the test with scores at or below 20, which indicated children were able to identify 31% of the test items correctly. By March of Second class, just one child scored below 20. There was a wide spread of scores apparent in June of First class (Table 11.23) so an ANOVA was run to ascertain if there was a significant difference between classes. This established that there was and the follow up Scheffe Post-hoc test indicated that the significant differences were between Class B and Classes C and D (Appendix F.). These tests which were also run in March, ascertained that these differences still existed and a further difference existed between Class A and Class C. These data are presented in Tables 11.24 and 11.25.

Table 11.23 Achievement on the Nonsense Word Test, by class

Class	Nonsense Word Test	N	Min.	Max.	Mean	Std. Dev.	Mean % correct
A	June First class	12	4	42	22.6	12.43	34.8
	March Second class	14	19	63	50.5	11.69	77.7
B	June First class	14	7	44	33.0	10.76	67.7
	March Second class	10	47	65	59.9	5.82	92.2
C	June First class	16	0	43	13.6	12.16	66.2
	March Second class	14	21	62	37.7	12.81	58.0
D	June First class	13	5	39	16.2	10.08	60.0
	March Second class	13	23	55	43.1	9.63	66.3
All	June First class	55	0	44	21.1	13.51	67.7
	March Second class	51	19	65	46.9	13.09	72.2

Table 11.24 ANOVA for differences between classes on Nonsense Word Test March Second class

Nonsense Word Test	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3242.643	3	1080.881	9.531	.000
Within Groups	5330.180	47	113.408		
Total	8572.824	50			

Sig at the p<0.5 level

Table 11.25 Scheffe Post-hoc: Dependent variable: Nonsense Word Test March Second class

(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Class A	Class C	12.79(*)	4.03	.026	1.12	24.46
Class B	Class C	22.19(*)	4.41	.000	9.40	34.97
	Class D	16.82(*)	4.48	.006	3.84	29.81

* The mean difference is significant at the .05 level

The mean achievement of the whole cohort in March of Second class was 46.9, indicating an average of 72.2% correct (Table 11.23). The corresponding scores for Class A (50.5, 77.69%) and Class B (59.9, 92.2% correct) were higher than for Class C (37.7, 58.0%) and Class D (46.9, 72.2%). The profile of the lowest achievers will be discussed in the final section of this chapter. Next correlations were run to determine the strength of the link between performance on the DSRT and the Nonsense Word Test. The resulting coefficient, .80 ($p. < .01$), indicates a strong link between the two measures. In addition, correlations were run to investigate if there

were associations between performance on the Nonsense Word Test and the Spelling Test in February and June of Second class and these can be seen in Table 11.26.

Table 11.26 Correlations between the Nonsense Word Test and the DPST

	Nonsense Word Test June First class	Nonsense Word Test March Second class	DPST Second class	DPST June Second class
Nonsense Word June First class	1	.819(**	.872(**)	.816(**)
Nonsense Words March Second class	.819(**)	1	.779(**)	.784(**)
DPST February Second class	.872(**)	.779(**)	1	.914(**)
DPST June Second class	.816(**)	.784(**)	.914(**)	1

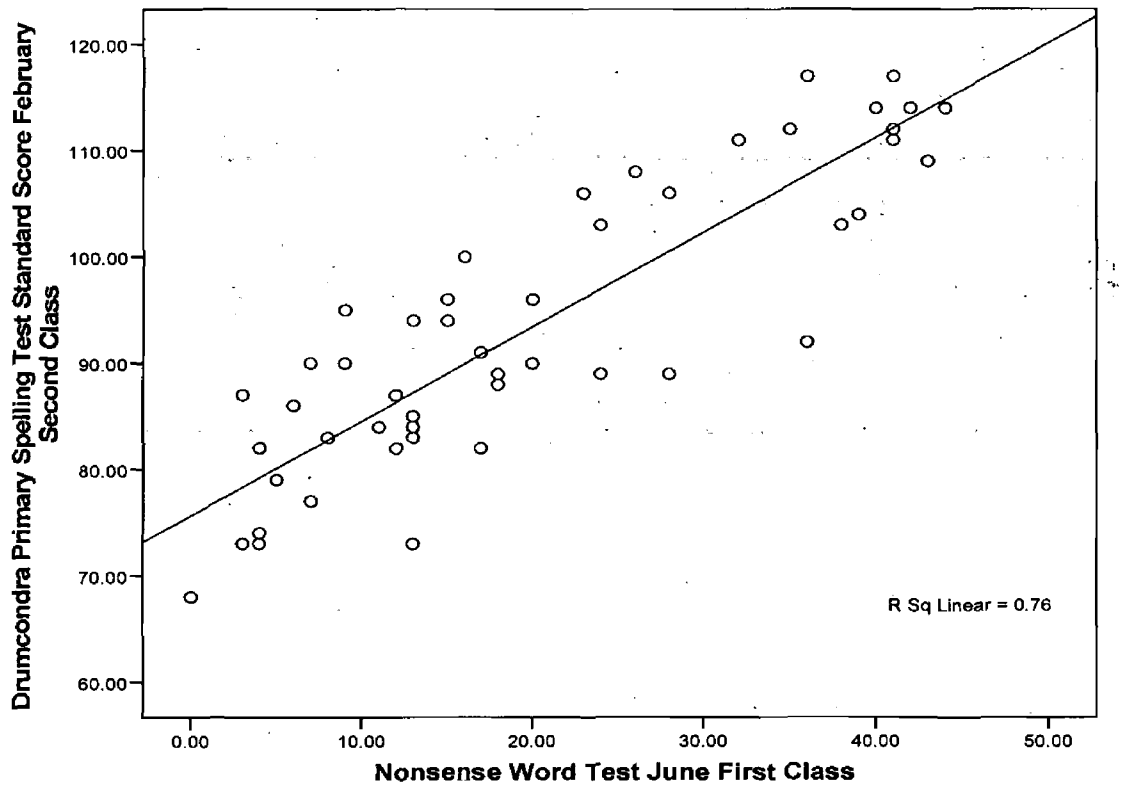


Figure 11.9 Relationship between achievement on DPST (February, Second class) and performance on the Nonsense Word Test (June, First class)

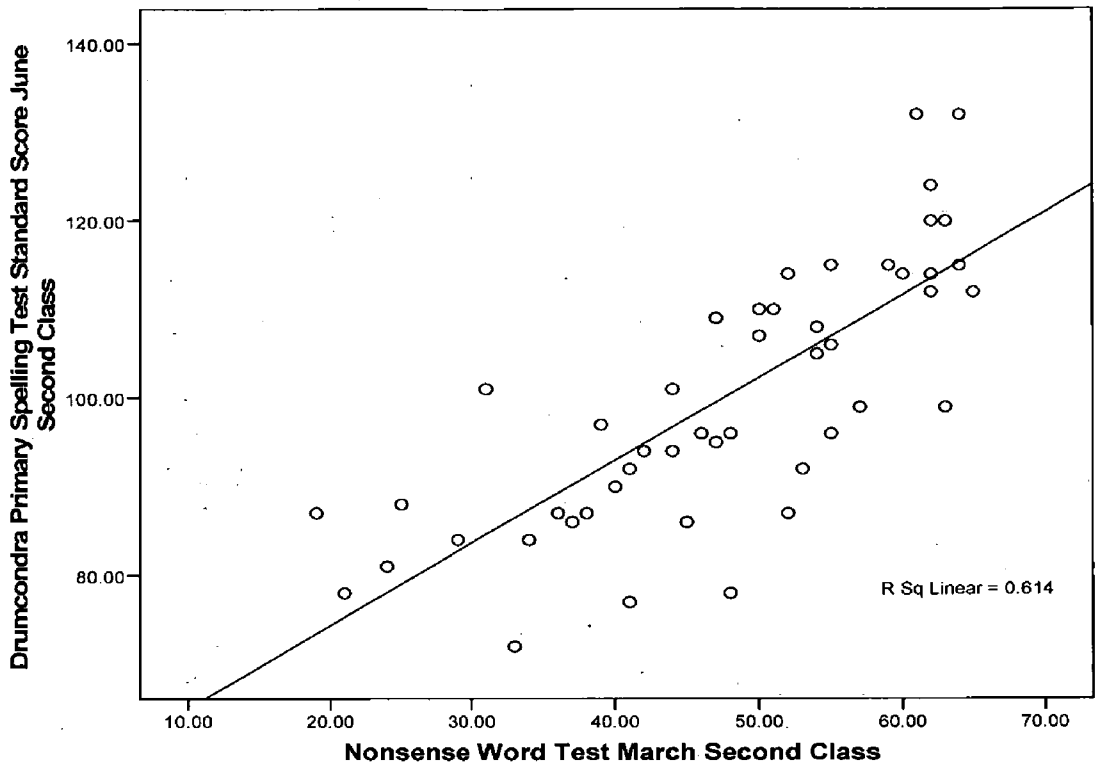


Figure 11.10 Relationship between achievement on DPST (June, Second class) and performance on the Nonsense Word Test (March, Second class)

The relationship is slightly stronger in the case of performance on the Nonsense Word Test in June of First class and the Spelling Test in February of Second than in the case of the Nonsense Word Test in March of Second class and spelling performance at the end of the year. It can be seen from Figures 11.9 and 11.10 that, for a small number of children, a ceiling effect can be observed, as these children performed at the top of both scales. There are also a small number of children who performed strongly on the Nonsense Word test but did not perform as well on the DPST. Equally, there is a small number who performed very well on the standardised measure but not as well on the Nonsense Word Test. These children may have difficulties with particular aspects of phonics or with the skills of segmenting and blending but may have a good sight vocabulary and so have the opportunity to do relatively well on the standardised test which is broader in scope than the Nonsense Word Test, which only tests application of phonic concepts taught.

11.5 Writing Achievement

Data were collected at four points of the study to monitor children's achievement in writing (see Table 11.1). The Criterion Scale (Wilson, 2002) was used to score all writing samples (See chapter five for a description of the scale, inter-rater reliability and how it was used in the study). As can be seen from Table 11.27, overall achievement increased by 5.1 points bringing the average achievement of the whole group to 8.7 which is between Level 2B (8) and 2A (9). This improvement was found to be statistically significant when a matched pairs t-test was conducted. In addition, Cohen's D gave an overall effect size of 3.5 which can be considered to be very large. Achievement for each class is presented in Table 11.28.

Table 11.27 Achievement in writing: Baseline sample (October, First Class) to final sample (June, Second class)

Group	Writing Sample	Mean	N	Std. Dev.	Std. Error Mean
Pair 1	October First Class	3.6	48	1.53	.22
	June Second Class	8.7	48	1.38	.20

As Table 10.28 indicates, the largest gains (6.4) were made in Class A which had the lowest score at the outset. While Class D had the second highest mean score at the outset, it made the lowest overall gain (3.9), whereas Classes B and C made gains of 5.7 and 4.7 respectively. It is interesting to note that Class B had the highest mean score at both the beginning and the end of the study.

Table 11.28 Mean achievement scores in writing for each class in February and June of Second class

Group		Writing Sample	Mean	Wilson Level	N	Std. Dev.	Std. Error Mean
Class A	Pair 1	October First class	2.7	WL1	12	0.89	.26
		June Second class	9.1	2A	12	0.67	.19
Class B	Pair 1	October First class	4.3	L1	10	1.70	.54
		June Second class	10.0	3C	10	1.15	.37
Class C	Pair 1	October First class	3.6	WL1	15	1.35	.35
		June Second class	8.3	2B	15	1.54	.40
Class D	Pair 1	October First class	3.8	WL1	11	1.83	.55
		June Second class	7.7	2C/2B	11	0.90	.27

Given the variation in the gains between classes a matched pairs t-test was computed to determine if individual classes made significant gains. This established that they did. This is important to note, particularly in the case of Class D, which did not make significant gains in reading until the last 3 months of the study. The results of this test are presented in Table 11.29 and indicate significant growth for each class with no adjustments of the p. value required, since all are <.001. Figures 11.11-11.14 illustrate the percentages of children achieving at each level on the Criterion Scale at each testing point.

Table 11.29 Test of significance of mean score differences in achievement in writing in each class between October, First class and June, Second class

Paired writing Samples: October First class - June Second class	Paired differences					t	df	Sig. 2-tailed
	Mean	Std. Dev.	S.E.M.	95% confidence				
				Upper	Lower			
Class A	-6.4	1.00	.29	-7.05	-5.78	-22.313	11	.000
Class B	-5.7	2.16	.68	-7.25	-4.15	-8.334	9	.000
Class C	-4.7	1.53	.40	-5.58	-3.88	-11.953	14	.000
Class D	-3.9	1.64	.50	-5.01	-2.81	-7.904	10	.000

P=<.0125

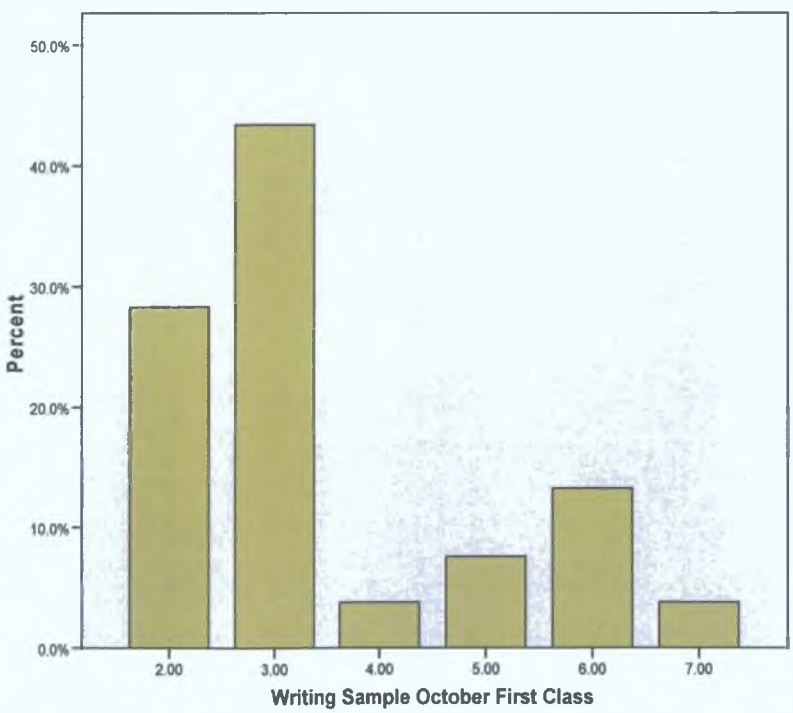


Figure 11.11 Writing Achievement October, First class

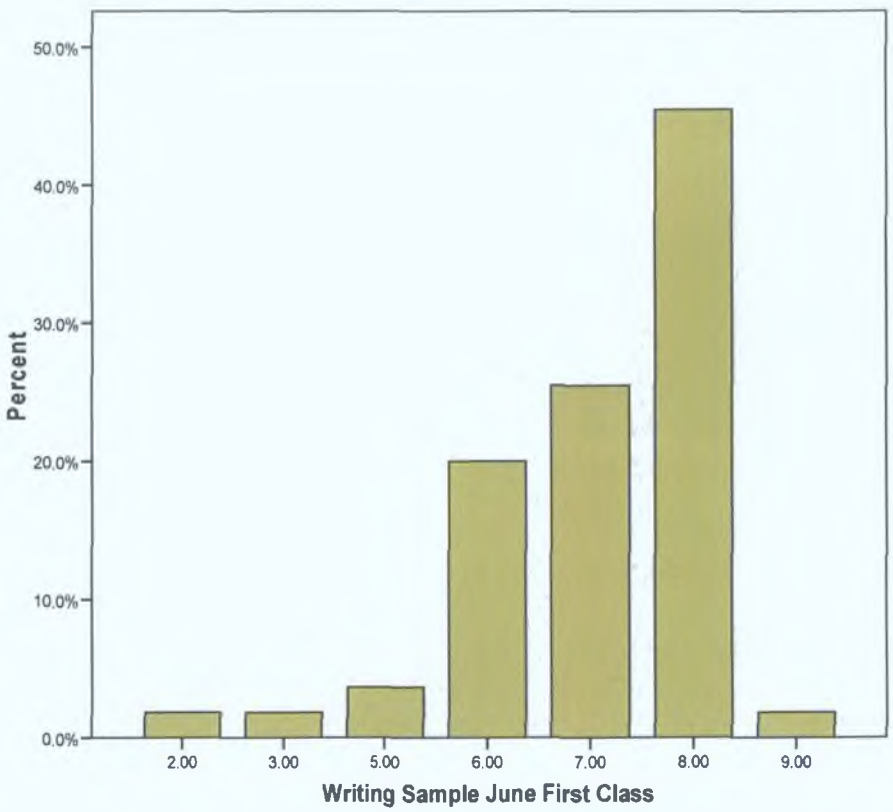


Figure 11.12 Writing Achievement June, First class

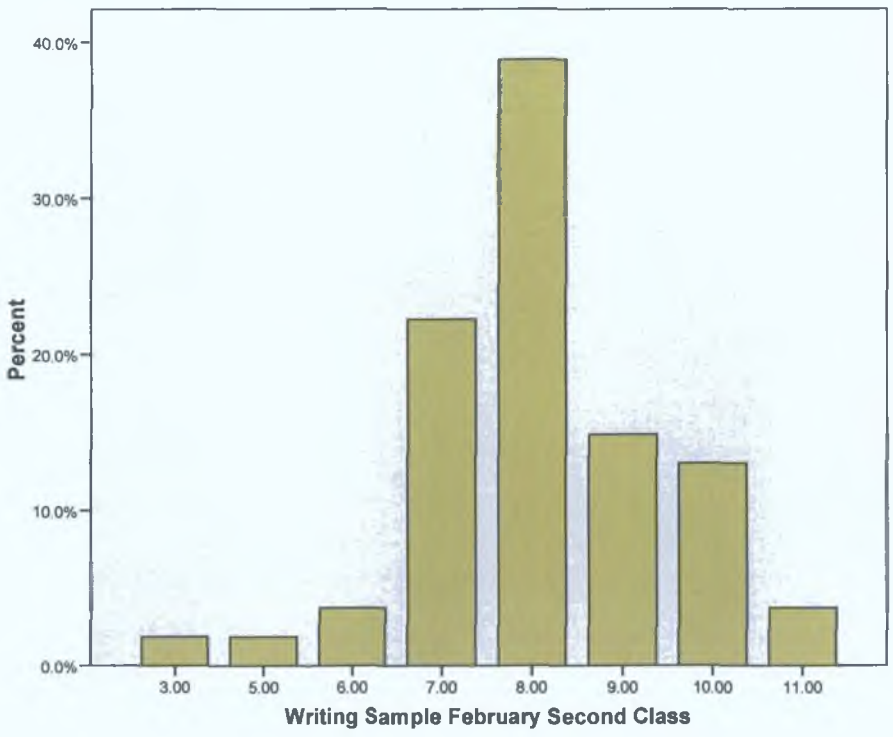


Figure 11.13 Writing Achievement: February, Second class

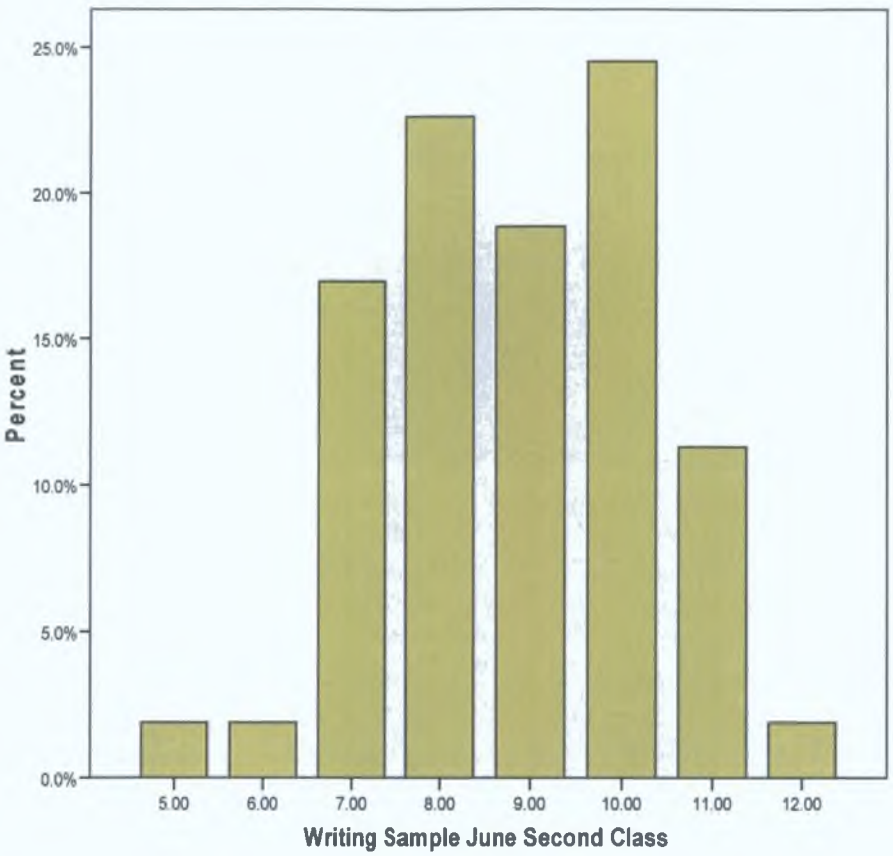


Figure 11.14 Writing Achievement: June, Second class

It is interesting to note that at each point of the study at which writing samples were gathered there were significant gains in overall mean scores in writing achievement (see Appendix F for Tables and calculations during this period), even between June of First class and February of Second class. Table 11.30 presents mean writing achievement scores at each of the four testing periods in the study, along with minimum and maximum scores for each class.

Table 11.30 Achievement in writing for each class in First and Second class

Group	Testing Period	N	Min.	Max.	Mean	Std. Dev.
Class A	October First class	12	2.00	5.00	2.7	0.89
Class B	October First class	11	2.00	7.00	4.2	1.66
Class C	October First class	15	2.00	6.00	3.6	1.35
Class D	October First class	12	2.00	7.00	3.8	1.76
Class A	June First class	12	7.00	8.00	7.8	0.45
Class B	June First class	11	6.00	9.00	7.8	0.75
Class C	June First class	15	2.00	8.00	6.3	1.22
Class D	June First class	12	6.00	8.00	6.8	0.87
Class A	February Second class	14	7.00	11.00	8.5	0.94
Class B	February Second class	11	7.00	11.00	9.6	1.03
Class C	February Second class	16	3.00	8.00	7.1	1.41
Class D	February Second class	13	6.00	9.00	7.5	0.78
Class A	June Second class	14	8.00	12.00	9.4	1.09
Class B	June Second class	11	7.00	11.00	10.1	1.14
Class C	June Second class	16	5.00	11.00	8.2	1.60
Class D	June Second class	12	7.00	10.00	7.8	0.94

In this period, there was not a corresponding growth in reading achievement and it may well be that children's writing development was moving ahead of their reading development. In addition, all classes made significant gains at each of the four points at which samples were collected with the exception of Classes B and D who did not make major gains in the latter half of second class, albeit for very different reasons. While Class B did not make a statistically significant gain in this period, it can be observed from Table 11.30 that this class actually obtained the highest mean score (10.1) overall indicating that average achievement for this class was at level 3C, compared to the Level 2A for Class A, 2B for Class C and 2C for class D. Class B had achieved to a high level throughout and were achieving towards the upper end of the criterion scale for their age at the end. It may be that Class D in this period was concentrating more on reading instruction as pupils in that class made their only significant gain in reading during this period. Examples of children's writing at the end of the study are shown in Figures 11.15-11.16. Further examples can be seen in the final section which examines differences between high and low achievers at the end of the study.

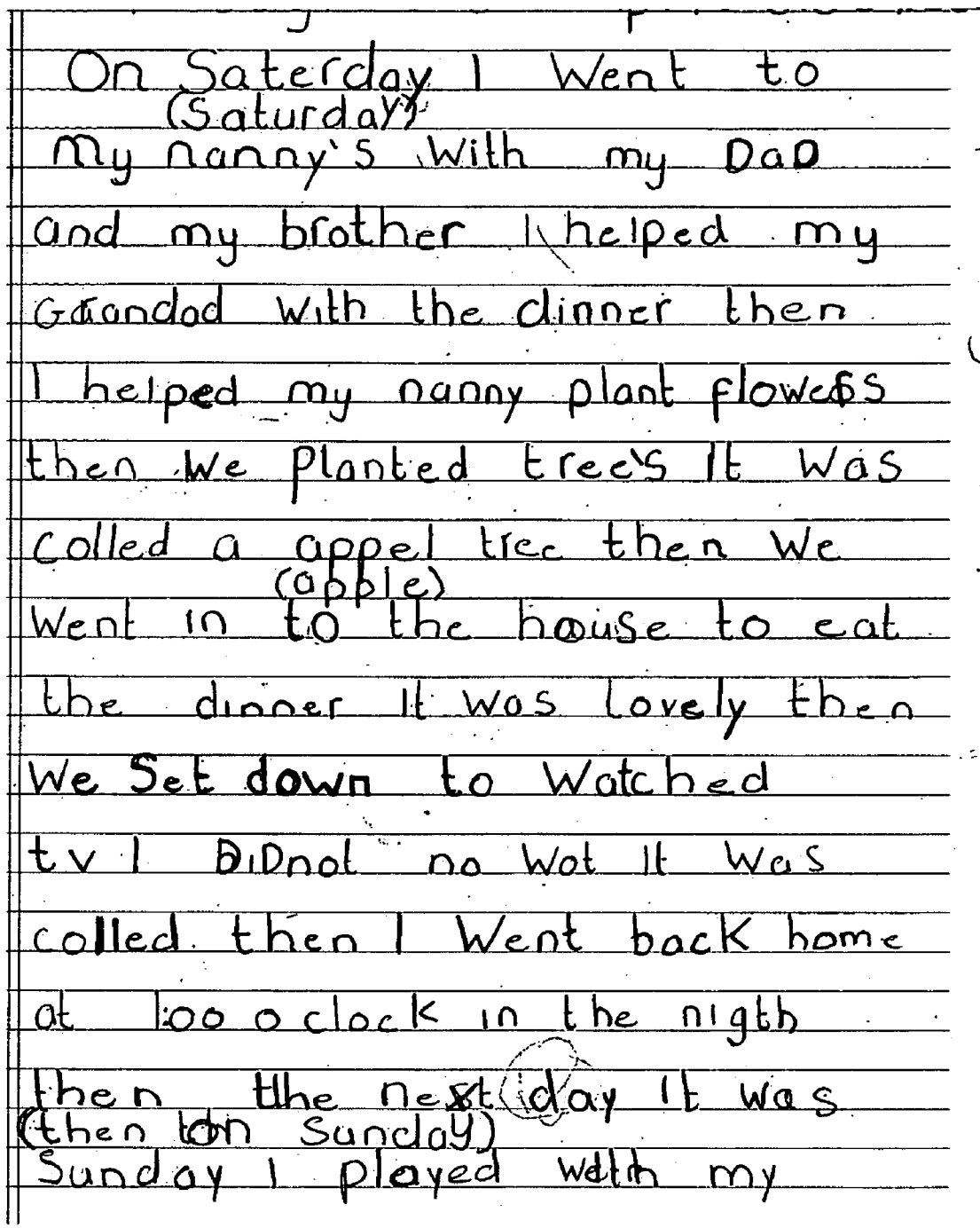
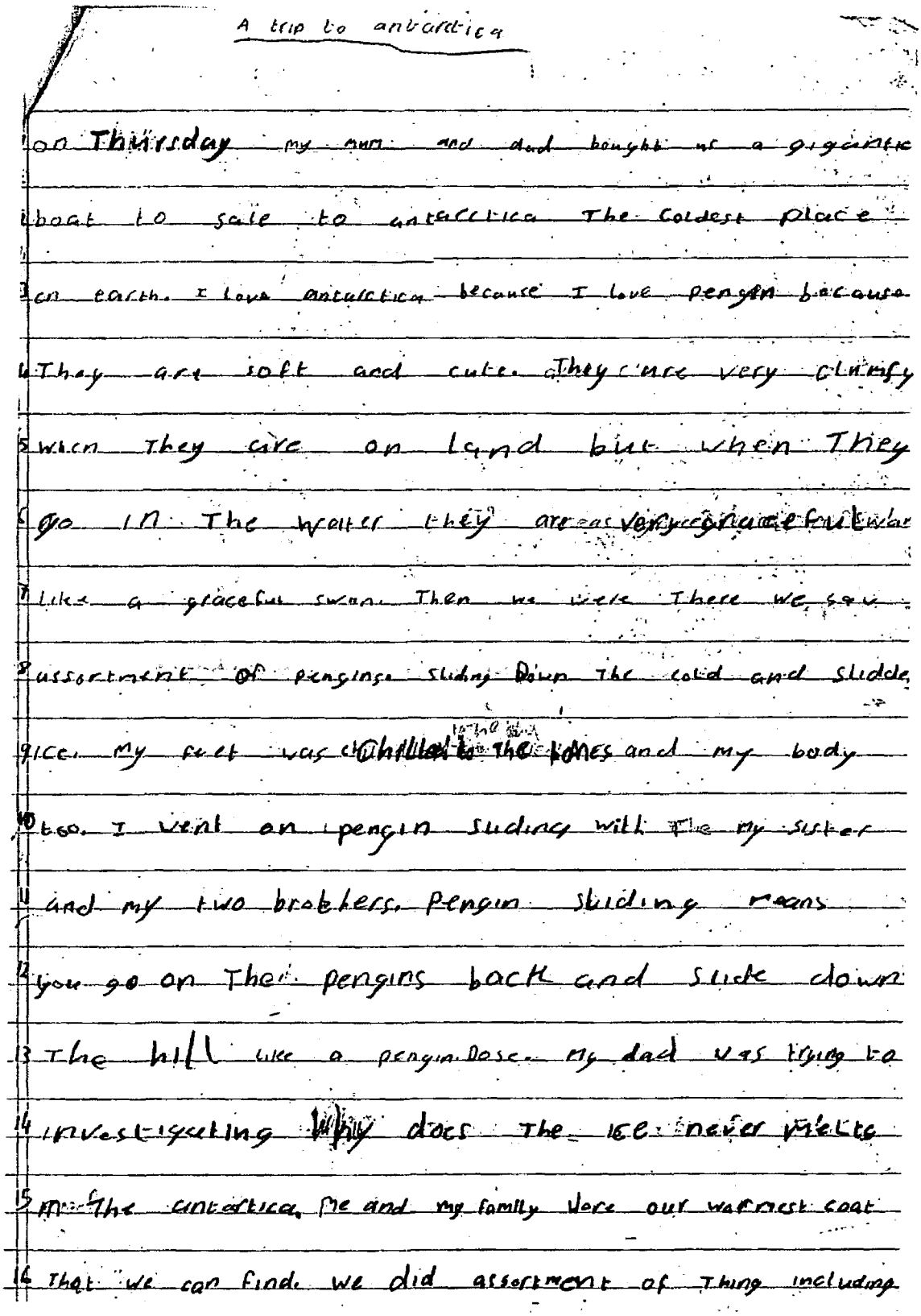

On Saterday I Went to
(Saturday)
My nanny's With my DaD
and my brother I helped my
Grandad with the dinner then
I helped my nanny plant flowe&s
then We planted tree's It Was
Colled a appel tree then We
(apple)
Went in to the house to eat
the dinner It was lovely then
We Set down to Watched
tv I DiDnot no Wot It Was
colled then I Went back home
at 100 o clock in the nigth
then the next day It was
(then on Sunday)
Sunday I played with my

Figure 11.15 End of study: Level 2C

Can write with meaning in simple sentences (may not be correct in punctuation and structure at 2C)
Can use simple phonic strategies to spell unknown words
Can use any connective (may only be and to join 2 simple sentences



A trip to antarctica

On Thursday my mum and dad bought us a gigantic boat to sail to antarctica The coldest place on earth. I love antarctica because I love pengin because They are soft and cute. They are very clumsy when They are on land but when They go in The water they are as very graceful as a like a graceful swan. Then we were There we saw assortment of pengins sliding down The cold and slidde nice. my feet was chilled to the bones and my body too. I went on pengin suding with The my sister and my two brothers. Pengin sliding means you go on The pengins back and slide down The hill like a pengin does. My dad was trying to investigating why does The ice never melts in The antarctica. Me and my family wore our warmest coat That we can find. we did assortment of Thing including

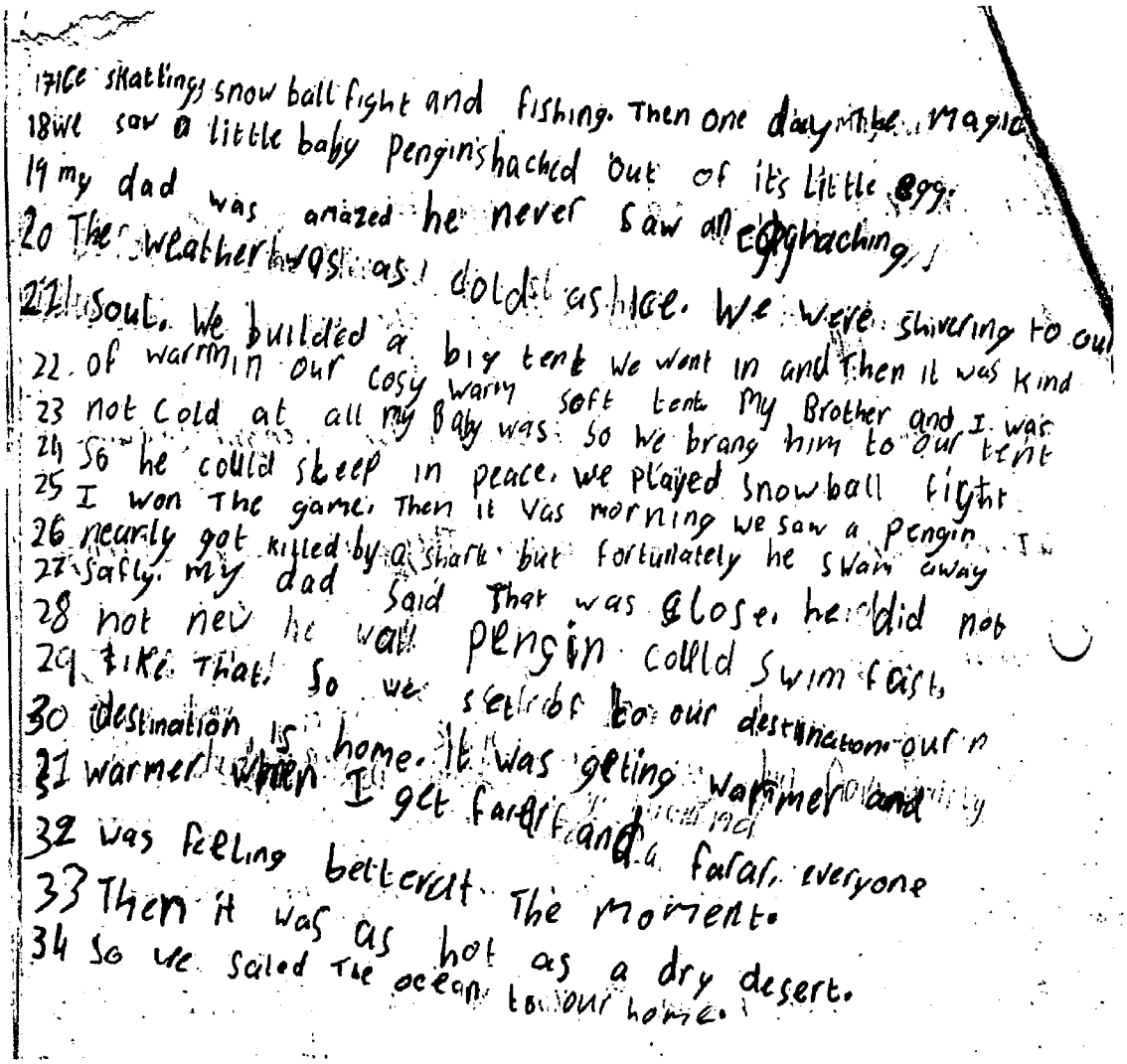

17ice skatting, snow ball fight and fishing. Then one day the magic
18we saw a little baby Pengin hached out of its little egg.
19 my dad was amazed he never saw an egg hacking.
20 The weather was as cold as ice. We were shivering to our
21 soul. We builded a big tent we went in and then it was kind
22 of warm in our cosy warm soft tent my Brother and I was
23 not Cold at all my Baby was so we brang him to our tent
24 so he could sleep in peace. we played snowball fight
25 I won the game. Then it was morning we saw a Pengin
26 nearly got killed by a shark but fortunately he swam away
27 safly. my dad said that was close. he did not
28 not nev he wall pengin could swim fast,
29 like that. so we started to our destination our
30 destination is home. It was geting warmer and
31 warmer when I get farar and farar. everyone
32 was feeling better out. The moment.
33 Then it was as hot as a dry desert.
34 So we saled the ocean to our home.

Figure 11.16B Level 3B

This sample is from a child for whom English was not his first language (evident in some sentence structures above) and in fact his parents did not speak English. After a lesson on the Antarctic many children wrote non-fiction pieces while he chose to showcase what he knew about the Antarctic by writing a fictional piece in which he and his family visit and observe many things.

The writing is full of detail and description including adjectives, adverbs and similes: my feet was chilled to the bone; soft and cuddly; clumsy on land but graceful when they go in the water; as cold as ice; as hot as a dry desert; like a graceful swan; safely; b

There are original turns of phrase: we were shivering to our souls; Then one day the magic happened we saw a little penguin hatching out of its little egg. my dad was amazed, he never saw an egg hatching. My Dad was trying to investigate why does the ice never melt in the Antarctic?

Evidence of vocabulary learned in class: investigate, an assortment, fortunately, gigantic, destination. Majority of words spelled correctly and full stops mostly used correctly while capital letters are not 100% correct.

This little boy reported that he loved to write at home and usually had several pieces of writing on the go at the one time.

11.6 Changes in Achievement in Relation to Gender

The mean achievement of boys and girls was compared on a number of measures to document any differences in achievement related to gender. In all of the major reports on literacy achievement in this country in the last five years (Eivers et al., 2004, 2005, 2007), boys have been found to significantly under-perform on literacy measures relative to girls. In Eivers et al. (2004) which used the same test as was used in this study, girls outperformed boys in Third and Sixth class and more boys than girls had very low scores on the test (Eivers et al., 2004). Gender differences were also apparent in the National Assessment of Reading (Eivers et al., 2005) with girls outperforming boys overall and on narrative texts and documents at First and Fifth classes. This finding is in line with international trends as the results of the Progress in International Reading Literacy Study (PIRLS, 2003) indicate that girls outperform boys in all thirty-five participating countries, though Ireland did not participate in this study. The only international comparative data we have for reading at the primary level is that from the IEA study conducted in 1992 that examined the literacy achievement of nine and 14 year olds. Morgan and Martin (1994) reported that mean scores were higher for girls than boys in all participating countries and to a significant extent in some countries including Ireland, where there was a difference of 15 scale score points between boys (502) and girls (517) (standard deviation of 100). Ireland was one of the few countries in which the gender gap widened as children progressed through the school system (14 year old girls scored 23 points higher than their male peers). The recent PISA study, (Eivers et al., 2007) indicates that this trend has continued, as females (aged 15) had significantly higher mean scores in literacy than their male peers. In addition, there were more than twice as many males performing at or below baseline proficiency than females (16.7% to 7.7%). Furthermore, 14.6% of females were performing at the upper end (proficiency level 5) compared with 8.7% of males. This trend was also seen in other countries participating in the test. By contrast, in the current study the boys performed marginally better than the girls, which was a surprising and unexpected finding. While this difference was not found to be statistically significant, it is interesting and one can only hypothesise as to why this might be the case. Mean achievement scores for boys and girls on a number of measures are presented in Table 11.31.

Table 11.31 Comparisons of achievement between boys and girls on the DSRT, DPST, the MICRA-T, the Nonsense Word Test and Writing Samples

Measure	N Girls	Mean Girls	Std. Dev. Girls	N Boys	Mean Boys	Std. Dev. Boys	Difference * (G-B)
DSRT January, First	25	79.4	8.6	31	82.9	13.1	-3.5
DSRT June, First	25	93.2	11.7	33	96.1	13.7	-2.9
DSRT January, Second	23	92.4	11.0	30	94.8	14.2	-2.4
DSRT May, Second	24	95.8	12.5	31	98.6	15.6	-2.8
DPST February, Second	24	92.1	11.6	31	94.8	15.2	-2.7
DPST June, Second	23	99.6	14.5	31	101.3	16.0	-2.7
MICRA-T June First	25	97.3	11.1	33	99.4	15.8	-2.1
MICRA-T June Second	24	94.6	12.3	32	98.1	13.1	-3.5
Nonsense Word Test June First	24	19.4	13.1	31	22.5	13.9	-3.1
Nonsense Word Test March Second	24	47.2	12.5	27	46.9	13.8	-0.3
Writing October First	23	3.61	1.4	30	3.33	1.6	-0.23
Writing June First	25	7.12	0.9	30	7.00	1.5	-0.60
Writing February Second	24	8.21	1.2	30	7.97	1.6	-0.37
Writing June Second	24	8.88	1.4	29	8.79	1.6	-0.17

*None of these differences reached statistical significance.

At the start of the study boys and girls were well represented at both ends of the achievement spectrum on the DSRT. At the outset, 13 of the boys were performing below the 10th percentile. By the end of the study 4 of these were still reading at this level. In contrast, there were 15 girls performing below the 10th percentile at the outset, while only 2 of these remained there at the end. There were only 5 children reading at or above the 50th percentile (50th, 58th, 63rd, 70th) at the start of the study and 4 of these were boys. These boys maintained their position and made significant gains to advance above the 80th percentile (87th, 90th, 86th, 90th respectively) while the number of girls performing above the 80th percentile increased to 3. In fact, there were more than twice as many boys performing above the 80th percentile as girls at the end of the study. Some researchers have suggested that the style of instruction in the classroom can have positive or negative effects on boys' achievement (Younger et al., 2002). Many of the features of instruction found to suit boys were present in this study, though in reality these features are common to high quality literacy instruction regardless of gender. These aspects were explored in chapters 9, 10 and 12.

11.7 Achievement in Relation to Level of Support

11.7.1 Children in Reading Recovery

At the outset of the study children were assigned support services based on their scores on the Middle Infant Screening Test. Almost half of the children received support of one kind or another. The four children with the lowest scores and deemed to be most in need of support were assigned to Reading Recovery. In addition, two children from the Traveller population were also given Reading Recovery, as the Resource teacher for Travellers was also the Reading Recovery teacher, thus bringing the total to six. On the DSRT in January of First class, the mean standard score for this group was 73 (See Figure 11.17). However, this distribution is negatively skewed due to the fact that one of the children received a zero on the test. In year two, the two children from the Traveller population continued to have this support. One of these children who began with a higher standard score than the mean for the group (88), ended the year at 84 and ended the study with a score of 83, indicating that the pupil held his position but did not make additional gains by the end of Second class. His teacher had the following to say at the end of year one: 'I don't see his results reflect how well he is getting on. He really works hard. When it comes to lunch break and he's writing, he will still go on' (MIC/p.24). This child did make progress in writing, particularly in the second year, and ended the study on a 2C. Of the original four children in Reading Recovery (not including the two Traveller children), two children made strong gains on the DSRT over the first year and maintained them in year two, though one continued to receive support teaching as English was an additional language for this child and Reading Recovery was not available in year two. The other two children did not make significant progress and of these one was assigned to learning support in year two and the other attended resource teaching. This latter child had extreme difficulties retaining information and with comprehending text and was diagnosed with a language disorder towards the end of the study. The child attending learning support in year two had difficulty operating within a whole class situation as indicated in the following quote:

> We have the problem with certain children here. It's just the nature of the kids we have. XXXX was on level nineteen last year in Reading

> Recovery and now he is asking to go back to fourteen himself. It's all to do with loads of things but he is incapable of operating in a group, he's just incapable. One to one with Reading Recovery he probably would be up at level twenty-four by now. (CL7A)

While this child struggled with reading, he did make progress in writing and in fact discovered that he liked to write poetry. His teacher, mindful of his difficulties operating independently, had assigned him a writing partner to help him get started in the writing workshop everyday, which seemed to help him settle and concentrate:

> I did use thinking partners, writing partners, to clarify your thinking, to help you tell your partner the story. Make sure they're clear, I used that a good bit...it particularly helped the learning style which likes to think aloud and interact. Those kids as well that need, say like XXXX for example, that need to feel a point of connection before they engage in anything. That did a lot for him, that's what he needs to get going at all, you know. (FIA/p.12)

So one can see that the children assigned to Reading Recovery in year one had a range of specific needs. The achievement of all six Reading Recovery children compared to other groupings can be seen in Figure 11.17.

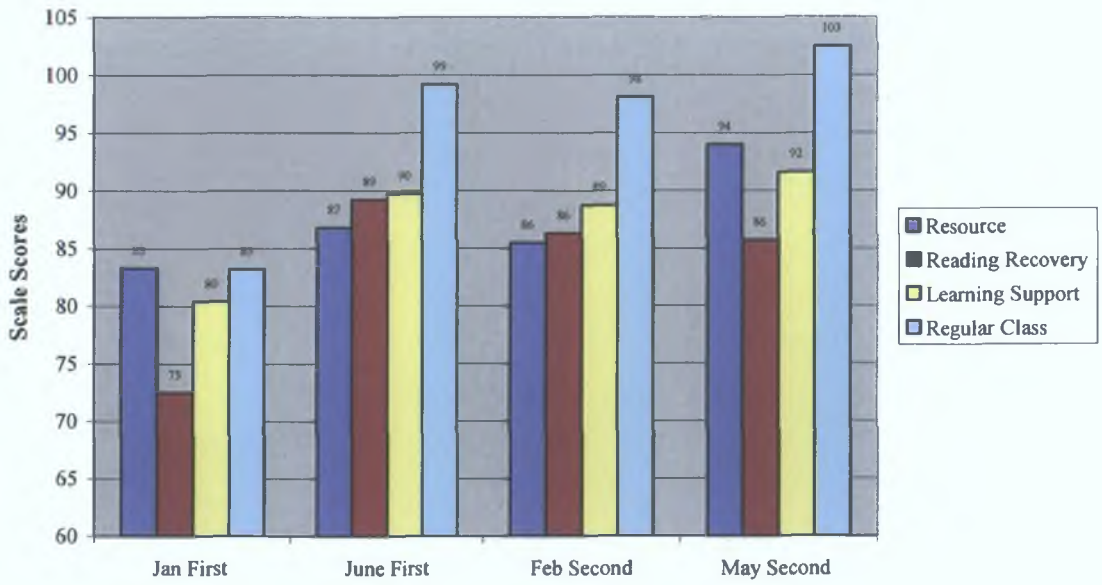


Figure 11.17 Achievement of children on the DSRT at four points of the study according to the support offered in year one

11.7.2 Children in learning support and resource teaching

Figure 11.17 shows the results for the original group of children who received resource teaching in year one of the study (four) and the children who received learning support (16), compared with those in Reading Recovery (six) and the regular class. It can be observed that, at the outset of the study, both learning support and resource groups had higher mean scores than the children in the Reading Recovery group. The mean for the resource group is skewed due to the consistently high achievement of one child who began at the 63rd percentile and ended at the 86th. This child had been diagnosed with a language disorder prior to commencing school. Two of the other three children in the group were below the 10th percentile and one was performing below the 13th at the outset. By the end of the study the child at the 13th percentile remained there on the DSRT but on the MICRA-T was performing at the 30th percentile on the class-based norms and the 45th on the age-based norms. It may be the case that the variation in performance was exacerbated by the attentional difficulties this child presented with. Another child in this group with a documented attention deficit disorder made very good gains but did not maintain them (1st to 19th in First class to 4th to 13th percentile in Second) showing considerable variation in performance over the 4 testing points. The fourth child in this group had a documented behaviour disorder, which had a negative effect on both his own performance and that of the class in general (Class D which has been referred to earlier in relation to slower progress). This child was frequently very disruptive despite having a Special Needs Assistant assigned to him. He was absent for the DSRT but was present for the MICRA-T and achieved below the 10th percentile on both norms, ending at the same point as he began. If we factor out the high-achieving child, the mean for the resource children would be 75 at the outset and 81 at the end, representing a change from the 5th to the 12th percentile, and the 35th with the other child factored in. Like the children in Reading Recovery, children in this group had some very particular needs and as such varied in response to instruction and levels of progress. Nine of the original 16 children in learning support, on the other hand, made very good progress and no longer needed extra support in year two. In the case of four of the other six, poor attendance, challenging home backgrounds and an underlying learning difficulty may have impacted on achievement. The other two children ended the study at the 35th and 47th percentile respectively.

11.7.3 Children not requiring additional support

At the start of the study the children not in need of extra support had a standard score of 83 (13th percentile) and by the end of the study had increased by 20 points to bring them to 103 (58th percentile). When one factors in the children who had received support in year one and who remained in the regular class in year two the mean score for this grouping is 102 (55th percentile), indicating that on average the children who only needed support for one year were able to match achievement with the original regular classroom cohort.

11.8 Comparison Between Low-Achievers (Bottom Quintile) and High-Achievers (Top Quintile) at the End of the Study

11.8.1 Performance on the DSRT

There were 11 children performing in the bottom quintile of achievement on the DSRT at the end of the study and there were also 11 children in the top quintile of achievement. Figure 11.18 shows the mean scores of these children. It can be observed that the children who ended the study with the highest scores had a mean score that was higher to begin with too: 93 (32nd percentile). However, it is interesting to note that the score of one of these high achievers in January of First class (the first testing period) was 74 (4th percentile), indicating very low achievement, while the maximum score in this testing period was 108 (70th percentile), demonstrating the wide range of achievement in the cohort at the beginning of the study. The mean achievement for this group had increased to 117 (87th percentile by the end of the study). The minimum score for this group at the end of the study was 114 and the maximum was 131 which, when converted to percentiles, indicates a range from the 82nd to 98th percentile. It is worth remembering that only five children were reading above the 50th percentile and none were achieving above the 70th at the outset. All 5 of these children were among the 11 high achievers at the end of the study. Therefore the other six children in the group were lower achievers to begin with (range 4th to 35th percentile) and so made larger gains. The child with the highest score on the DSRT at the end began the study

at the 6th percentile, indicating dramatic improvement. It can also be observed that the group with the highest scores at the end of the study had made steady progress throughout the study whereas the lowest achievers at the end of study made very slow progress throughout. This lower-achieving group was composed of four of the Reading Recovery group (including Traveller children), two of the original Resource group, three who were in learning support for two years, one who was in learning support for one year and who one was in the regular classroom.

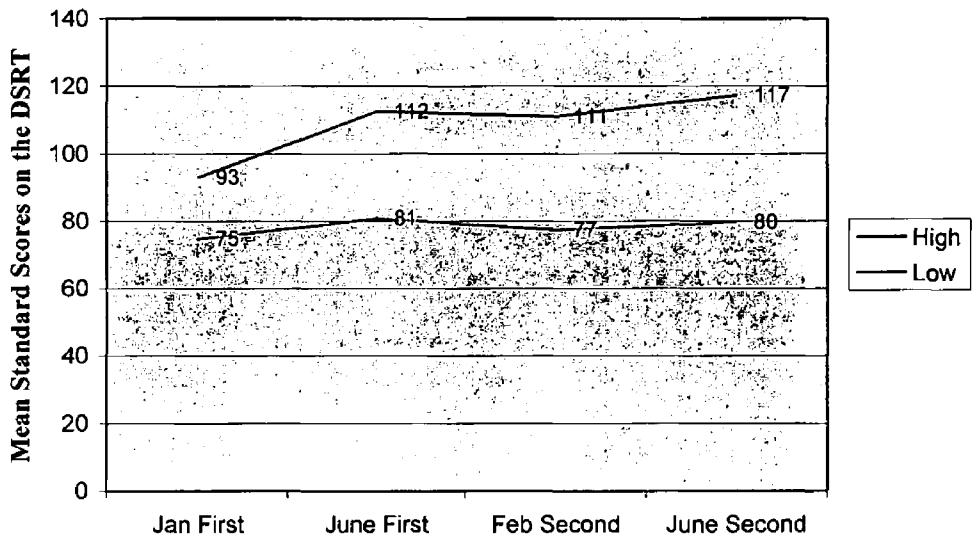


Figure 11.18 Progress on the Drumcondra Sentence Reading Test of the high and low achievers at the end of the study

This last child had a spiky performance throughout the study beginning at the 6th percentile, advancing to the 24th, regressing slightly to the 19th and regressing further to the 12th at the end of the study. She may have been adversely affected by the level of disruption experienced in her particular class in the second year of the study (see above). One of the children in this group had missed a significant number of days from school (88 days, 64 in year two). Thus, it is interesting to observe that there was a cohort of children for whom there was very little progress despite the intervention of Reading Recovery and sustained learning support on top of classroom literacy instruction.

11.8.2 Performance on the Observation Survey of Early Literacy Achievement

The written vocabulary test of the OS was administered twice during the study. This tests children's ability to write and spell correctly words that they know and it is a timed test (10 minutes). While the high and low achieving children (based on their DSRT scores) began at similar points (28 and 32 words respectively), their rates of progress were vastly different, as can be observed in Figure 11.19.

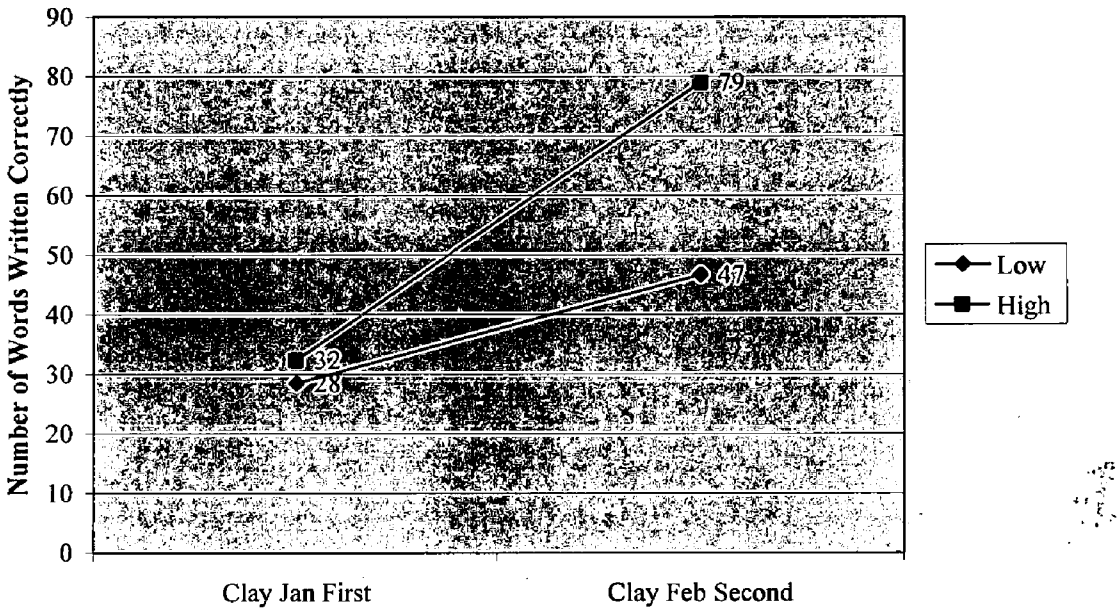


Figure 11.19 Number of words written correctly on the written vocabulary sub-test on the OS in January First class and February Second class of the high and low achievers in reading at the end of the study

On average, the high achieving group of children spelled 32 more words correctly than the lower-achieving group at the end. While the mean was 28 at the outset for the low achieving group, the scores ranged from a low of 7 to a high of 53. By contrast, the range for the high group was 21 to 57. Similarly, at the end of the study the range for the low group was 17 to 56, while, for the higher group, it was 50 to 103 words, with an average of 79. There was also a difference in the kinds of words written (see section above on the Observation Survey).

11.8.3 Performance on the DPST

As with the scores on the DSRT, the scores of the low achievers on the DPST were lower than the high achievers to begin with in February of Second class (77, 6th percentile) compared to (107, 68th percentile), illustrating the large gap between these two groups (see Figure 11.20). For the low rate group scores ranged from 68 to 84 which, when converted into percentiles, gives a range from 2nd percentile to the 14th percentile. By contrast, in the high achieving group, scores ranged from 82 to 117 which, when converted, range from the 12th to the 87th percentiles. Thus the lowest achiever in the high group was performing at a similar level to the highest achiever in the low group. The highest percentile recorded by the low group at the end was 25th percentile and for the top group it was 98th percentile, again indicating the very large gap between these two groups. For the top group the lowest score was the 34th percentile, which was substantially better than the best score of the lower-achievers.

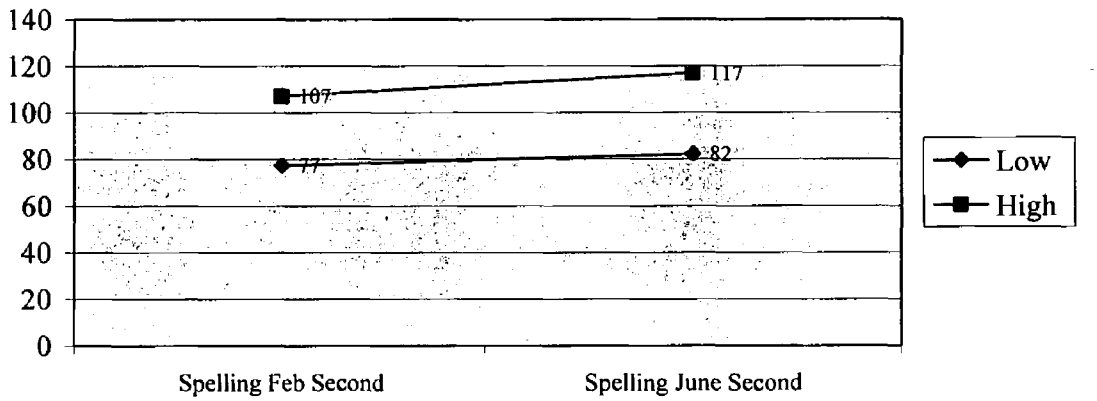


Figure 11.20 Rates of progress on the DPST of the high and low achievers in spelling at the end of the study

11.8.4 Performance on the Criterion Writing Scale

As with the other measures of achievement, the scores of the lowest achieving children in writing at the end of the study were also lower to begin with. The lower achieving children at the start were all below Level One while the higher achievers were performing between Levels 1A and 1B. The distance between the two groups remained throughout the study, varying between 1.7-1.9 in First class to between 2.0

to 2.7 in Second (see Figure 11.21). The higher-achieving group made steady progress, achieving gains of 3.2, 1.2 and 1.2 between October and June of First Class, between June of First and February of Second class and finally between February and June of Second Class. The low achieving group made their biggest gain in First class (3.4) and the rate of progress slowed considerably thereafter – just 0.9 points between June of First and February of Second, and 0.5 between February and June of Second.

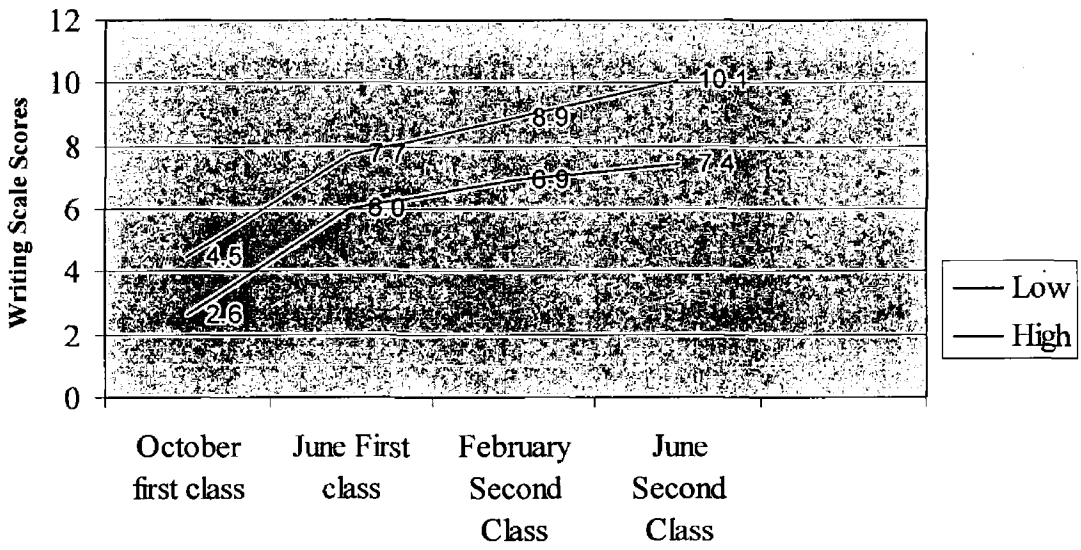


Figure 11.21 Rates of progress on writing of the high and low achievers in reading at the end of the study

The difference in the quality of the writing can be seen in Figures 11.22 to 11.25. Figures 11.22 and 11.23 show a low achieving child at the start of the study and that same child at the end of the study. Figures 11.24 and 11.25 show a child who was low achieving at the start of the study but who made very large improvements to move to the top performing quintile.

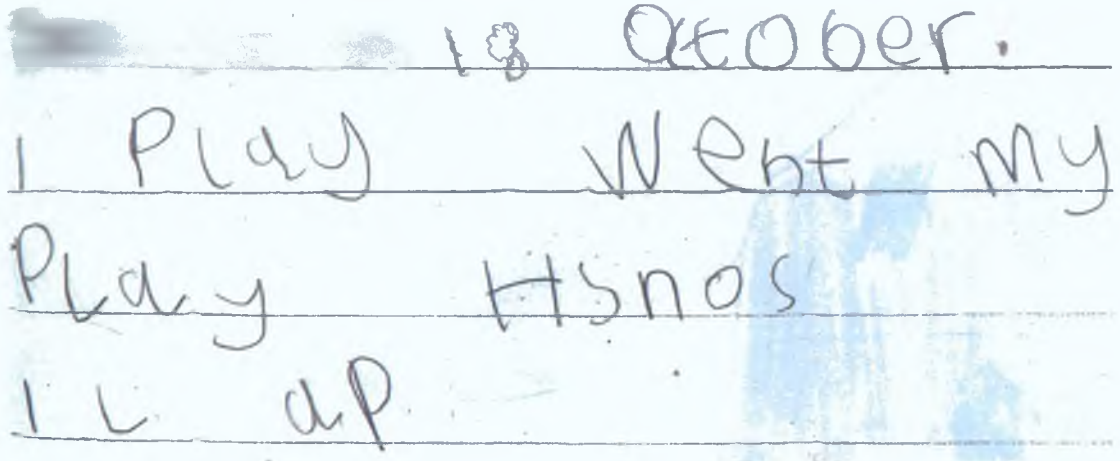


Figure 11.22 Child A: Low-achiever baseline: Level W1

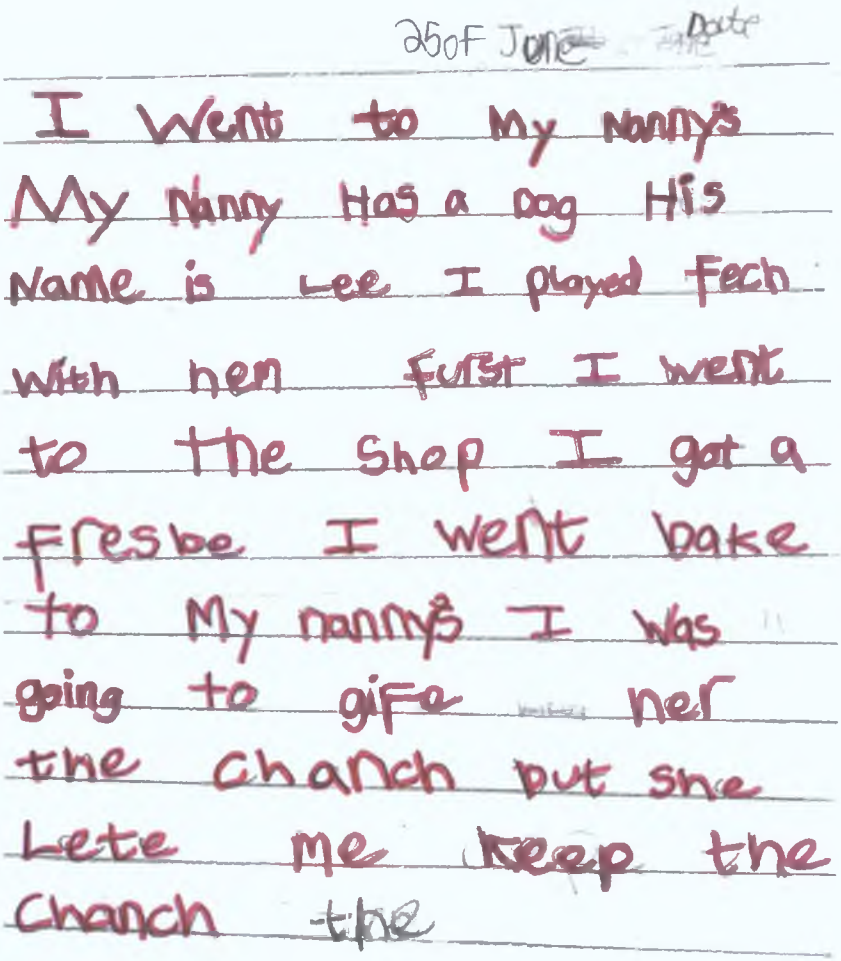


Figure 11.23 Child A: Low-achiever end of study Level 2C

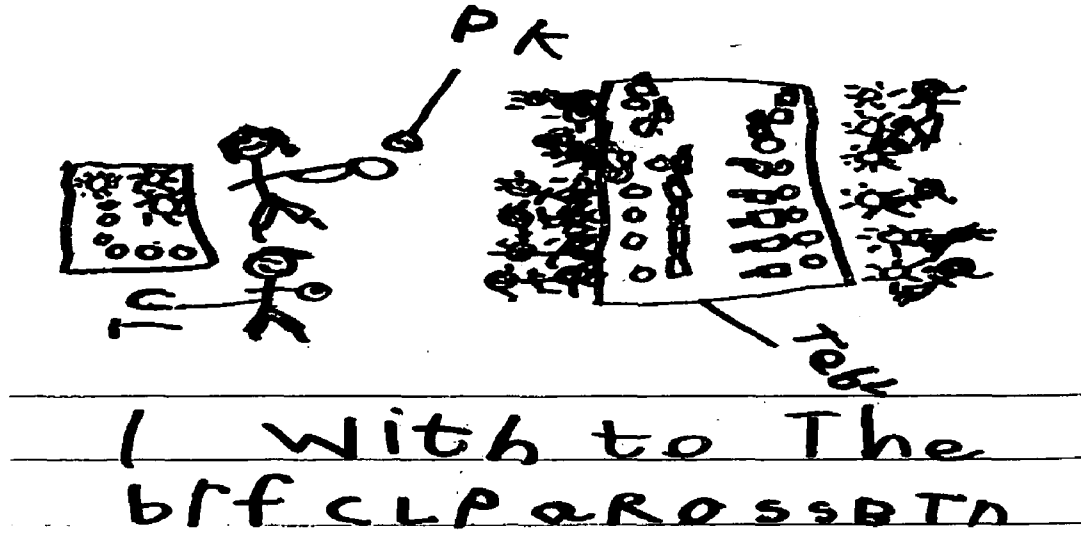
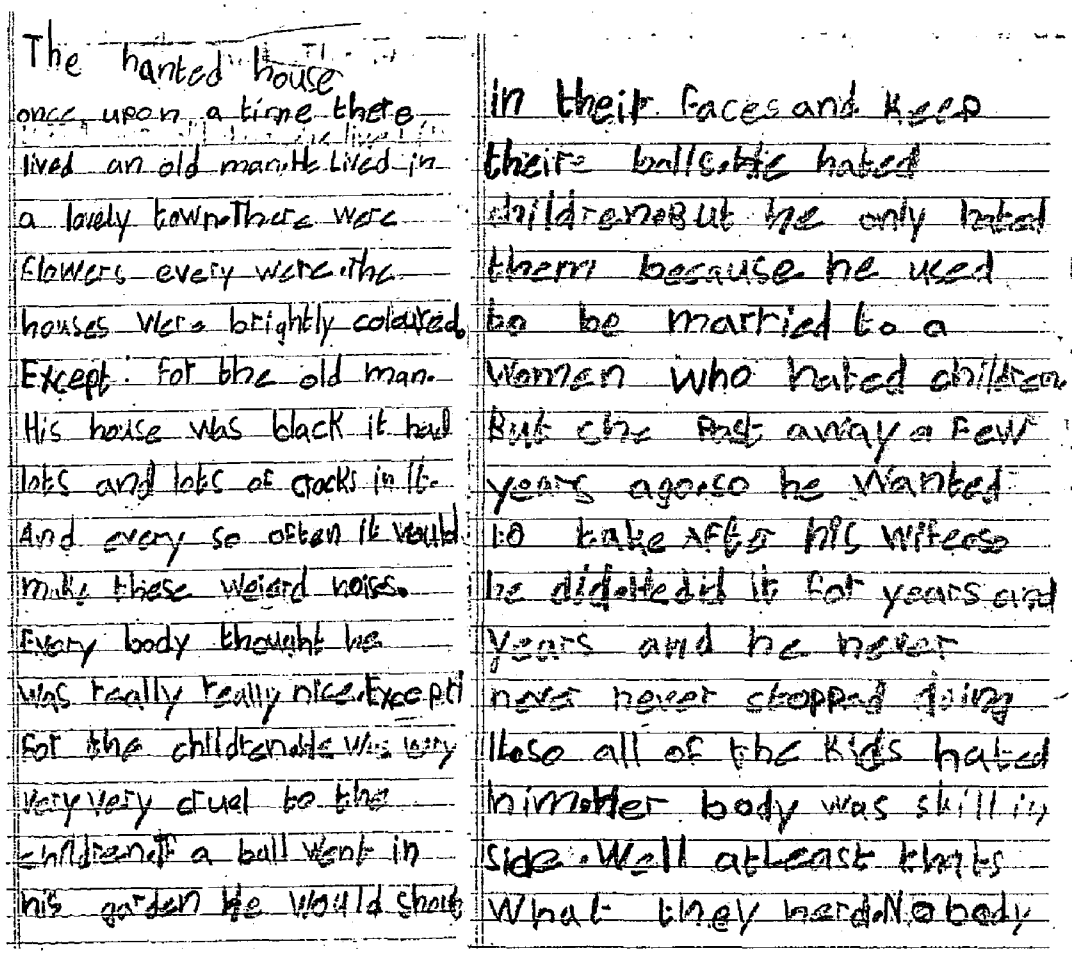
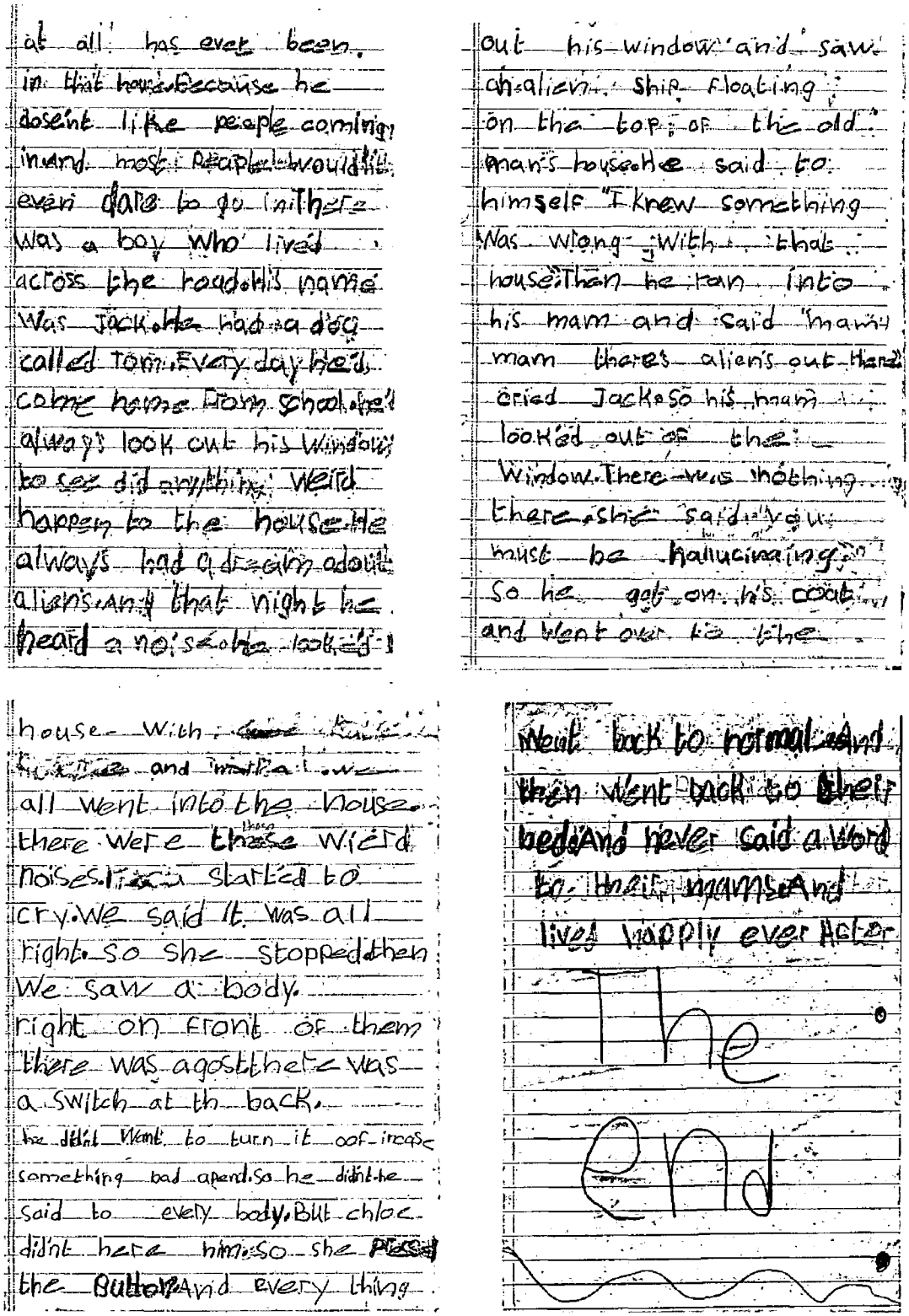


Figure 11.24 Child B: Level W1. Low-achiever at the start who moved to the high achieving group at the end of the study





at all has ever been in that house because he dosent like people coming inand most people would'nt even dare to go inthere was a boy who lived across the road.his name was Jack.he had a dog called Tom.Every day he'd come home from school.he'd always look out his window to see did anything weird happen to the house.He always had a dream about aliens.and that night he heard a noise.he looked out his window and saw an alien ship floating on the top of the old mans house.he said to himself "I knew something was wrong with that house.Then he ran into his mam and said 'mam mam there's alien's out there' cried Jack.so his mam looked out of the window.There was nothing there.she said.you must be hallucinating.' So he got on his coat and went over to the house with and inside all went into the house there were these weird noises.Tina started to cry.We said it was all right.so she stopped.then We saw a body right on front of them there was a gost.there was a switch at the back. he didn't want to turn it of.incase something bad apend.so he didn't.he said to every body.But chloe didn't here him.so she press the button.And every thing went back to normal.And then went back to their bed.And never said a word to their mams.And lived happly ever after

The End

Figure 11.25 Child B: End of study high-achiever (names blurred): Level 3B

This chapter has presented the analysis on the children's achievement across a range of measures. The final chapter reflects on both the qualitative and quantitative data and presents some conclusions arising from the study.

12 SUMMARY OF MAIN FINDINGS AND CONCLUSIONS

12.1 Introduction

How best to narrow the well-documented gap in literacy achievement between children in disadvantaged schools and their more affluent peers (Archer & O'Flaherty, 1991; Cosgrove et al., 2000; Weir, 2001, 2003; Eivers et al., 2004; DES, 2005b) has been a major focus of government educational policy in Ireland over the past fifteen years. Many initiatives have been put in place to address the issues identified in the research base. However, these have been designed to help schools compensate for the high levels of poverty experienced by their pupils and have focussed primarily on provision of extra staffing, resources and early intervention programmes. While extra funding and resources are important and vital elements of efforts to address disadvantage, on their own they have a poor history of success (Puma et al., 1997; Weir, 2003).

This study took a different approach and one not yet tried here in Ireland. It sought to collaborate with a school to investigate how best to narrow the persistent achievement gap by bringing the international research base on best practice in literacy to the Irish classroom. Much has been written internationally on schools that have 'beaten the odds' (that have higher than expected achievement given the demographics of the school) and on exemplary teachers of literacy who are more successful than their more typical peers in raising children's literacy achievement. This study sought to bring the lessons learned from these studies to the Irish context. In addition, much is known about how to teach literacy effectively; yet, this knowledge does not appear to be making its way to the classroom, as evidenced by the concerns highlighted in the recent Irish research literature e.g. cohesion between classroom and special education programmes, differentiation, systematic planning and assessment of literacy, the development of higher-order thinking skills and the emotional and imaginative development of the child (DES, 2002, 2005b, 2005c), which have all been identified as contributing to children's literacy difficulties. Recognising that there is no one best way and no best programme to teach literacy effectively to all children (IRA, 2000), this study sought to work closely with

classroom teachers and support teachers with levels of intensity sustained over time to help them further build upon and expand their expertise in literacy. The research base is clear: knowledgeable teachers are crucial to success in the classroom. Expert teachers are critical decision makers who have knowledge of a variety of methodologies and assessment tools and they know when and how to combine them into an effective instructional programme appropriate for their particular context and for the stage and development of their children. Thus, rather than having teachers feel bound to a particular programme, this study sought to equip them with a repertoire of strategies, tools and methodologies from which they could choose to shape their own literacy programme. Given that motivation and engagement are highlighted in the literature as being critical to efforts to raise achievement, this study also set out to help teachers design a cognitively challenging curriculum that would motivate and engage children and help them to view reading and writing as life-long tools that could be harnessed to achieve personal goals and dreams. In the sections that follow, how this challenging approach was put in place, a summary of the main outcomes that occurred as a result and the conclusions that can be drawn from the study are presented with reference to the specific research questions posed in chapter five. The overarching question of the study will be addressed last as it allows for a synthesis of the conclusions to be drawn from the research and the other research questions contribute to its understanding. The chapter concludes with the limitations of the research and directions for future research.

12.2 Question One: The Change Process

1. How might a research-based best practice balanced literacy framework be designed and implemented for the Irish context in collaboration with a designated disadvantaged school?

In this study, the implementation of a balanced literacy framework was achieved over two years as researcher and teachers worked through a process of change involving five phases, as outlined in chapter eight and conceptualised in Figure 12.1. The change model that was implemented, which drew on the work of Loucks-Horsley et al., (2003) and Guskey (1986, 2000, 2005), was both useful and successful in helping the researcher and teachers discover how best to bring the

research base to the Irish classroom and it informed the development of a systematic coherent cognitively challenging literacy programme that incorporated the essential skills for literacy within a balanced literacy framework.

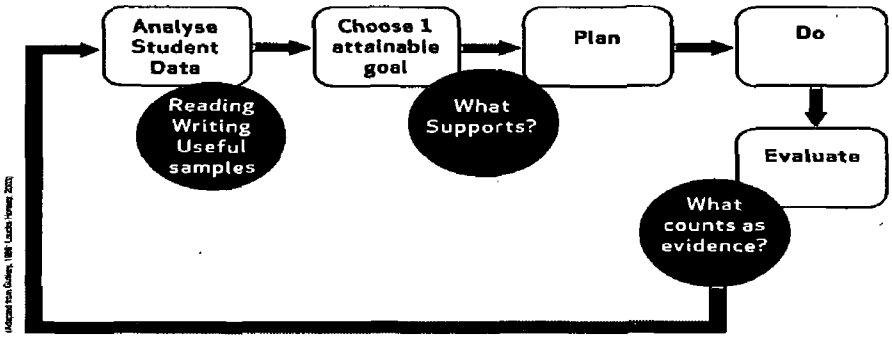


Figure 12.1 Change model used in the study: adapted from Loucks-Horsley et al. (2003) and Guskey (1986, 2000, 2005)

12.2.1 Equal partners

First, a collaborative relationship was established with the study school (a school in Band One of the DEIS strategy, DES, 2005). It is important to recognise that the knowledge base of both parties was considered to be of equal value and each of the partners were acknowledged as bringing 'separate but complementary bodies of knowledge' (Ross et al., 1999) to the investigation. Loucks-Horsley et al. (2003, citing Smith 2001 and Stigler & Hiebert, 1999) suggest that 'there is a growing emphasis on professional development that engages teachers in examining practice with experts and colleagues to develop specialised knowledge of the profession'. This study was conducted with the view that by working together and utilising the 'funds of knowledge' (Moll, 1992) of children, teachers, parents and researcher, a creative and successful response could be jointly constructed that would contribute to a narrowing of the gap in achievement between disadvantaged children and their more affluent peers and contribute to helping children adopt reading and writing as life- long habits.

12.2.2 A phased approach is necessary

There were a number of whole school discussions on current achievement levels and literacy instruction within the school and on the factors that teachers felt were interfering with the children's attainment. Rather than launching into a whole school change process, it was decided collaboratively with the teachers and the principal to focus on one class grouping (First class) and to work on a model with a view to up-scaling across the school were success to be achieved. The rest of the school would be kept informed of developments at staff meetings and through presentations at whole school planning days. As Guskey (1986) advises, start small but think big. The success of this study has indicated that starting small and working effectively with one class grouping can be a way for a school to begin to commit to the change process. Taking on a manageable level of change can focus effort and ensures resources are not spread too thinly initially.

It is also essential for participants to have ownership over the change process (Lipson et al., 2004) and so following analysis of current teaching practice and baseline student data the researcher and teachers decided on a first goal which in the case of the study school was the implementation of a daily writing workshop. Gradually, the other elements of the balanced literacy framework were added. It is therefore essential not to overwhelm participants with too many changes initially. Teachers need opportunities to feel secure with the changes before another new aspect is introduced. In general, teachers felt that these new approaches to teaching literacy were not like anything they had encountered before and that a big shift was required in one's thinking about instruction as well as one's practice in order to teach in these new ways, as reflected in the following teacher's comments at the end of the study: 'I've never really seen teaching like what we've been doing in any school, no, I haven't.' (FIB/p.76). Teachers also often reported feeling under pressure even though a phased approach was taken and even at the end of the study commented that more time would be needed to consolidate the new learning that had occurred. This confirms the need for schools to consider what internal supports they will need to put in place once the professional development has ended.

12.2.3 Structural support

It is also critical that when an aspect is identified for change, the resources and infrastructure are put in place to support it. Many initiatives fail because the 'structural' supports (Hord, 2008) that are necessary to facilitate them are not in place at the outset and/or are not sustained after the professional development has ended (Guskey, 2005). This is a key consideration and leaders of several of the successful initiatives outlined in chapter two (e.g. Partnership Read/High Rise, Au, Raphael, & Mooney, 2007; The Teachers College Reading and Writing Project, Calkins, 2001) will not begin working with schools until these structural elements are in place. This involves providing regularly scheduled time on the timetable for professional development activities with the professional developer and for teachers to work together outside of this. Some school districts in these initiatives pay for substitute teachers to release teachers from teaching duties. For example, in the PartnershipRead/HighRise project, teachers are released for the *equivalent* of 8 school days and this allows for flexibility in terms of scheduling sessions. These infrastructural elements are critical to allow for the sustained attention to change and the professional dialogue, inquiry and reflection that is required for high-quality classroom instruction. Finding this time without compromising instructional time for children presents a considerable challenge in the Irish context where teachers teach all subjects all day and there is no time scheduled for professional activities.

In this study, the time for the professional development was provided in two ways. Junior and Senior Infant teachers provided cover for classroom teachers participating in the study for the last hour of the day approximately once a fortnight and teachers typically remained on-site for an additional hour after school on these days. Secondly, substitute cover was provided on the days that teachers attended day-long professional development. In reality, teachers needed another session without the professional developer being present in order for them to synthesise the changes, debate issues together and plan for implementation with the special education team with whom they were collaborating. In the year after the study, this time was provided for teachers, as the professional development was no longer taking place.

12.2.4 Early success is essential

Nothing breeds success like success. Guskey (1986) argues that teachers care very much about their students, are highly committed to their learning and are reluctant to try new ideas and methods unless they are sure they will work. To change is to risk lower achievement by students and professional embarrassment if the change does not succeed. He suggests, therefore, that a key feature of any change process must be to build in early success for teachers where they can see a demonstrable positive effect on their students as a result of the changes they have made to their practice. This, he contends, will help them to stay the distance and commit to deep and lasting change. It also makes it easier to spread developments across a school once a model that will suit the particular school context has been devised (Guskey, 1986; Lein, 1997).

In this study, a deep commitment to the change process occurred after teachers had achieved success with the first major change to their practice. The changes they observed in children's achievement, alongside the changes they saw in their motivation and engagement, gave teachers the impetus to continue with the change process and to add another component. It is important, therefore, in any change process, to begin with one attainable goal and to build success early in the process as these 'mastery experiences' are instrumental in building teachers' confidence. As one teacher said at the end of the study: 'We had success with everything, do you know what I mean, we had success with everything, we are confident now with everything that we have learnt and we know it works' (FIB/p.64). The importance of early success in the change process should not be under-estimated as it is linked to the development of other key characteristics of successful schools such as the development of high expectations and self-efficacy which are addressed later in this chapter with reference to research question four.

12.2.5 Focus on evidence of student achievement

If the change process is to make a real difference to students' achievement it must be focused on documenting their specific strengths and weaknesses from the outset. In the short-term, formative assessment data are necessary for planning lessons and

responding to the individual needs of the learner. In the long-term, summative data is needed to see if children are progressing and meeting national standards. Both of these have been highlighted in the research literature in Ireland as needing attention in schools (DES, 2002, 2005b, 2005c). Successful schools focus on systematically monitoring student achievement and sharing assessment data at a school level several times a year (Taylor et al., 1999; Lein et al., 1997; Johnson et al., 1997; Designs for Change, 1998; Au, Raphael, & Mooney, 2007) to ensure standards are being met. This sharpens teachers' appreciation of where children need help and where they themselves need support to address these needs. It also allows schools to review and adjust targets on a rolling basis.

This was a key feature of the current study. Once goals were set, the supports put in place and the implementation had commenced, the teachers and researcher evaluated how the change process was working in reality, in the 'messy human complex world' of the classroom (Teachers College Reading and Writing Project website), and the impact it was having on student learning. Formative assessment data were gathered daily on reading, writing and word work as children were engaged in collaborative and independent work. Teachers used running records, checklists, conferences and observations, and examined the quality of work samples to see how learning was transferring to independent work. How student learning was progressing was a key focus of the professional development sessions and planning meetings with the teachers who shared successes and challenges on these occasions. In addition, standardised tests administered twice-yearly helped teachers to see how well children were progressing relative to their peers nationally and again these were shared and analysed at group meetings. The results of the standardised tests confirmed for teachers that the formative data they had were accurate, and that their observations of increases in pupils' motivation and engagement – another key objective of this study – were reflected in improved performance on national tests. This success helped teachers to see that their hard work was paying off, enhanced their self-esteem and cemented their commitment to the change process. Again one can see that the factors related to success in raising achievement work in symphony and are related to one another. Each time a goal was met a new element was added to the balanced literacy framework and so targets were continuously revised and updated which is a characteristic of the most effective schools in high-poverty areas

(Taylor et al., 1999; Lein et al., 1997; Johnson et al., 1997; Designs for Change, 1998; Au, Raphael, & Mooney, 2007).

12.2.6 Implications arising from question one

A collaborative approach whereby external specialist input is combined with internal team support is a promising way to get started on the change process and to help schools adapt the research base to their particular context and children.

Rather than trying to achieve change in all aspects of literacy at once, an incremental phased approach should be taken, that is specific to the needs of the particular school context and a plan for change put in place to accomplish this over a period of time. Building successful experiences for participants each step of the way should be a key component of the change process and should build a sense of personal self-efficacy for each person. Early success in meeting the targets jointly set is vital to the process so participants are not overwhelmed initially and will help to ensure they will stay the distance required for real and lasting change to occur. The length of time needed for the change process should not be underestimated and will vary according to the needs of each school. Within schools teachers will be on a continuum of change and will require different levels of support with the various elements of the literacy framework. Sustained and intensive levels of support should be provided for schools to help them achieve the targets they set.

School-level professional development plans should include a predictable regularly scheduled time for professional development for literacy. A rotating schedule of cover should be put in place to provide release time without compromising instructional time. The Department of Education and Science should consider funding substitute teachers for schools of disadvantage that are engaged in intensive efforts to improve literacy achievement. Schools will also need to consider what supports are necessary to sustain the changes and build on them when the professional development has ended.

A systematic approach to assessment is necessary to differentiate teaching and to cater for the individual needs of learners. Teachers should be supported in using a range of tools to track children's skill development in literacy and interpret

data from formative and summative assessments to move children forward. Assessment data, both formative and summative, should be reviewed at school level at least three times a year to ensure targets are being met and to identify solutions for children who are not progressing as expected and to help teachers consider where they need further support in addressing children's needs.

12.3 Question Two: Professional Development

2. What conditions, resources and kinds of professional development did teachers feel needed to be put in place in order to support them in changing their current classroom practice to that of a research-based best-practice balanced literacy framework?

12.3.1 A new conceptualisation of professional development

The research literature reviewed in chapter two highlights the shift in thinking in relation to professional development for teachers that has occurred in recent years which Villegas-Reimers (2003) contends is now considered to be 'a long-term process that includes regular opportunities and experiences planned systematically to promote growth and development in the profession'. According to the National Research Panel Report (NRP, 2000) there is insufficient evidence in the literature to support the link between professional development and student achievement but Villegas-Reimers (2003) in a major review of professional development notes several studies that provide strong evidence of improved student attainment as a result of changes in teacher practices following professional development (e.g. Borko & Putnam, 1995; Cohen & Hill, 1997; Supovitz & Turner, 2000). In the USA under the No Child Left Behind Act (2001) where schools are now being held accountable for the literacy achievement of all of their students and scientifically-based literacy instruction is mandated, schools have turned to the provision of high quality and effective professional development as a critical aspect of their reform efforts to reach targets and close the achievement gap. Effective professional development shares a number of key features, each of which was considered in the design of the professional development in this study. These include the development of sustained

on-site professional development focussed on both content and pedagogical strategies using a multi-faceted approach honouring teacher autonomy and creativity and the nature and level of collaboration between researcher and participants. These are summarised in the sections that follow.

12.3.2 Sustained on-site professional development

While research is not conclusive on the optimal length of time for professional development initiatives (Kinnucan-Welsch, 2006; Cordingley et al., 2003; Villegas-Reimer, 2003), many researchers have suggested that a substantial number of years are required for real and lasting change to occur. In the effective schools research presented in chapter three, the most effective schools had been engaged in professional development with an external partner (usually a university education department) for several years (five-eight). In the CIERA studies (Taylor et al., 1999, 2002, 2003) teachers took several yearlong courses in literacy. In the Partnership Read/HighRise literacy project (Au, Raphael and Mooney, 2007) aimed at raising achievement in highly-disadvantaged schools in Chicago's inner city and in Hawaii, structured courses are provided over four years to participating schools. In the Literacy Specialist Project (Kinnucan-Welsch et al., 2006) professional development is provided over the course of a year. In all of these projects and in the successful schools reviewed in chapter three, a key feature of the professional development is that it is provided on-site and is customised to the needs of a particular school, its teachers and children.

In this study, professional development was provided over two years for teachers. It was delivered primarily on-site approximately once a fortnight for approximately two hours duration. Several full days and a couple of half days were also provided for intensive work. In addition, the researcher was on site for demonstration lessons and to observe teachers teaching lessons in a non-evaluative way. It was the intention initially to provide the professional development over one year. However, it quickly became clear that a longer period was necessary so that new strategies could be implemented at a reasonable pace and to give time for teachers to feel confident in implementing them.

12.3.3 Content of professional development

Shulman (1987) contends that teachers need strong content knowledge and a variety of pedagogical strategies at their disposal if they are to be successful in teaching children, so attention to both is critical in effective professional development. In this study, the professional development sessions were aimed at helping teachers develop an in-depth knowledge of the reading process, knowledge of a variety of methodologies, knowledge of a variety of assessment tools and the ability to know when and how to use them. Understanding the theory and philosophy underpinning the particular approaches was considered essential and this understanding is a key feature of effective schools and teachers of literacy (Pressley et al., 2001; Lipson et al., 2004). Shulman (1987) also argues that teaching is a process of comprehension, reasoning, transformation and reflection. Therefore, the professional development provided sought to put this process into action. It began by helping teachers understand the research base and the theory and philosophy underpinning the methodologies shared with them. The goal was to honour teacher autonomy and to encourage teachers to use the research base 'to provide the grounds for their choices and actions' (Shulman, 1987, p.13). Teachers in this study felt such specialist knowledge was one of the key components of their success in raising achievement and was a contributing factor to the enhanced self-esteem and confidence that they reported at the end of the study. As Bandura (1995, p.2) suggests 'perceived self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations. Efficacy beliefs influence how people think, feel, motivate themselves and act.' It is clear that teachers in the current study increased their self-efficacy, and felt more competent in implementing new teaching strategies and programmes by the end of the study. These findings confirm the value of investing in teachers by developing their expertise to a high level through the provision of high quality professional development (Hall, 2006).

As already outlined, at the start of a change process an audit of the teaching context is required in order to see how it aligns with the current research base on literacy: data on instructional practices used in the teaching of reading, writing and word work; the kinds of content taught; time for literacy and how it is used; grouping practices; assessment tools; and texts used. *What* is taught and *how* it is taught are

key aspects of success in literacy (Taylor et al., 2003). The essential skills identified in the research (see chapter four: alphabetics, comprehension, fluency and writing skills) were all gradually introduced into the programme implemented in this study and developed into a cognitively challenging balanced literacy framework. The time allotted to each skill was balanced and reflected the needs of learners and their current stage of development. Instruction was appropriately paced and designed to support, challenge and engage pupils. New strategies and approaches were introduced incrementally so that teachers did not feel overwhelmed.

12.3.4 Multi-faceted professional development

Professional development is more successful if it is based on the constructivist principles that teachers will utilise in the classroom (Loucks_Horsley, 2003). Cambourne (2002, p.31) suggests that 'the process of making something one's own involves potential learners transforming the meanings and skills that someone else has demonstrated into a set of meanings and skills that is uniquely theirs.' Shulman (1987) concurs and suggests that this knowledge is further enhanced and refined as teachers use their new understandings to teach in new ways. He suggests that it is as one evaluates one's teaching and reflects on it, new knowledge is consolidated and understanding deepened.

In the current study, teachers were offered a multi-faceted approach to professional development, which they cited as a major factor in their success with children.

A first step in helping teachers reflect upon their practice is to provide opportunities for 'cognitive dissonance' (Thompson & Zeuli, 1999) to occur as this prompts teachers to question their current practices and beliefs. In this study, this was achieved through the provision of research-based professional literature which teachers read prior to attending sessions, thus providing the basis for debate and questioning to occur during the sessions. This was pivotal in helping teachers begin to see that there were other methods available to them in approaching literacy instruction and provided the 'social persuasion' (Bandura, 1995) that encouraged them to change their approaches as the studies revealed that these new approaches

had been successful in raising achievement in other similar contexts. As one teacher put it 'I got a lot from the readings. Challenging stuff, made me think. In reality we've been doing it wrong for the last 20 yrs.! Everybody across the country has, all teachers.' (CLST4).

Secondly, the provision of additional professional literature provided teachers with insights into how other classroom teachers had actually implemented new approaches and strategies. Teachers particularly valued the readings that contained classroom vignettes of actual classroom practice which illustrated step by step how to approach a new strategy and the kinds of teacher language to use when implementing it. This contributed to the 'vicarious experiences' that Bandura, (1995) suggests help teachers envision how they might utilise these new methodologies in their classrooms.

A third support that was offered to teachers involved demonstration lessons by the researcher on each new aspect that was introduced. Utilising Calkins (2001) approach to professional development, teachers sometimes offered their classroom as a 'lab site' and several teachers observed the same lesson and discussed it afterwards, providing opportunities for further professional dialogue and debate and consideration of what worked and what could have been done differently. Teachers were of the opinion that the modelling of the strategies was key and indeed in the second year of the study, they offered to model new techniques for the incoming group of First class teachers. In addition, teachers digitally recorded a selection of their lessons. Three of the four teachers indicated that this was most helpful to them in reflecting on their teaching and in picking up assessment information on children that they might have otherwise missed. It was interesting that teachers requested the demonstration lessons and also asked the researcher to visit their classrooms to oversee the change process and to observe their teaching. The research literature on effective professional development indicates that the teachers who experienced collaborative approaches to professional development involving classroom observation and feedback had stronger beliefs in themselves and their power to change things compared to those who had experienced observation in a supervisory or accountable capacity and who had not received feedback (Da Costa, 1993, cited in Cordingley et al., 2003; Joyce & Showers, 1988). Certainly, in this study it

contributed to the positive changes that teachers observed in themselves and which are outlined in response to research question four below.

Fourthly, observation frameworks adapted from Shanahan's Chicago Reading Initiative (2003) were devised and as teachers watched the researcher teach lessons they looked for evidence of the various elements and stages of a particular lesson and noted how the children were engaging with the lesson (see Appendix E for an example). These frameworks also served as useful supports to teachers as they set about structuring their own lessons. DVDs were also provided occasionally as a further support. Teachers commented that having the opportunity to actually see other teachers in action modelling the strategies for them, was very helpful, again underlining the importance of valuing each teacher's learning style and providing opportunities for them to construct new knowledge for themselves.

Of particular importance was the coherence that was brought to the whole proceedings through fortnightly meetings outlined earlier which ensured that each new component added built on the one before and fitted within the overall balanced literacy framework that teachers and researcher were working towards implementing. These meetings provided opportunities for teachers to question, debate issues, share ideas, evaluate and reflect on how the changes were impacting on the children and, as noted earlier, they analysed student data and set the change agenda. Teachers cited this constant refocusing as essential. Teachers were of the opinion that there would need to be one teacher from the school appointed to the position of instructional leader in the future in order to keep the change process going in the coming years and to drive it forward.

12.3.5 Teacher autonomy and creativity

This multi-faceted approach honoured teachers' creativity, built their expertise and valued their individuality. This approach honours the notion of life-long learning, and the professionalism and autonomy of teachers as critical decision makers who are creators of curriculum rather than consumers of it (Au, Raphael, & Mooney, 2007). They were not limited to a programme; rather they created their own while honouring the research base and the components of the balanced literacy framework.

These were all aspects that teachers cited as being important; they found the whole process intellectually stimulating and exciting and it consolidated their commitment to the change process.

12.3.6 Collaboration

Effective professional development involves collaboration on several levels: collaboration between the professional developer and the teachers; collaboration between classroom teachers of the same class level; and collaboration between classroom and support teachers. These collaborations can lead to the establishment of professional communities of practice, a shared vision, and collective responsibility for ensuring all children reach their potential in reading and writing (Kinnucan-Welsch, 2006; Au, Raphael & Mooney, 2007; Hord, 2008). This helps to build 'relational trust' (Hord, 2008) whereby teachers support each other, share successes and failures, and adopt a spirit of experimentation, inquiry and reflection on teaching. Successful schools with large numbers of underachieving children use 'push-in collaborative teaching' whereby the SET team goes into the classroom to maximise support and instructional time, and facilitates differentiation through small group instruction (Taylor et al., 1999). In the Partnership Read/HighRise project, teachers work in grade levels on a regular basis to develop 'a staircase curriculum' that is coherent, developmental and useful for planning and assessment purposes.

The most successful high-poverty schools are thus, intensively engaged in developing consistent and coherent whole school plans in relation to implementing 'off the shelf' reforms such as Success for All or their own research based home-grown models. Archer & Weir (2004, p.29) note while whole school plans are required by the DES in relation to initiatives such as Breaking the Cycle or Giving Children an Even Break 'there is a need to know how significant the process is in the life of a school. It seems unlikely that many Irish schools prioritise planning in the way that happens in programmes like Success for All or the School Development Programme'. Collaboration then is a key element in helping schools develop the 'unity of purpose' and reform of the school into an organisation that is focused on every child achieving to their potential in literacy (Kellaghan et al., 1995).

As noted at the start of this chapter, there was a genuine collaboration between researcher and teachers and between classroom and SET teachers. A 'unity of purpose' evolved over the two years as everybody's attention was channelled into analysing children's strengths and weaknesses and developing an appropriate response. Literacy was high on the agenda and this new focus was noticed by children and parents and contributed to their motivation and engagement. Classroom and SET teachers successfully collaborated on the one instructional programme, the design of which was facilitated through the multi-faceted professional development and the regular meetings that occurred. The SET team worked in the classroom three mornings a week and facilitated small group instruction that changed according to the needs of the children and included work on phonics, sight vocabulary, vocabulary development, comprehension strategies (see chapter nine for details). They also withdrew children in need of extra support on the other two days and consolidated and reinforced the work they had been engaged in on the team teaching days. This was a worthwhile approach and contributed to the gains the children made across the board. This kind of approach necessitates substantial planning on the part of the co-operating teachers and as such requires time for teachers to get together, to share formative assessment data and to plan future lessons. This time will need to be provided in addition to the time for the professional development. Teachers in this study were of the opinion that this was a critical element and that 45 minutes a fortnight would suffice.

12.3.7 Implications Arising from Question Two

Given the emphasis in the literature on the current conceptualisation of professional development for teachers as a life-long process, there is a need to put structures in place in Ireland to support teachers in adopting this stance.

Schools wishing to enhance children's literacy achievement, should be supported in developing a 'unity of purpose' through the provision of on-site professional development, sustained over time (sometimes several years) and with sufficient intensity and levels of support to build momentum and maintain change, while not overloading teachers. As in this study, it needs to be customised to the needs of the school, teachers and children; therefore it requires that the persons

delivering the professional development have a high level of expertise in relation to literacy development and that they can help schools devise action plans unique to their context in the light of the research base.

Given the link in the current study between teachers' enhanced expertise in literacy and their confidence and proficiency in implementing new programmes and strategies, there is a need to invest in building the expertise of teachers of literacy in disadvantaged schools to high levels and maintaining expertise at those levels. A dual focus on content knowledge (such as the essential skills for literacy and the construction of a cognitively challenging balanced literacy framework) and innovative strategies for translating the content into practice is critical. Simply having the content knowledge and focusing on that in the classroom is not sufficient as indicated in the recent evaluation of the No Child Left Behind Act (Gamse et al., 2008); how teachers mediate content in the classroom is equally important.

In schools where there are high concentrations of children who are underachieving in reading, it will take time to effect change and different schools will have different needs along a continuum of change. Multiple supports such as demonstrations, observations and provision of professional reading material should also be included as part of a multi-faceted approach to professional development and the improvement of literacy achievement in disadvantaged schools. Regularly scheduled meetings as utilised in this study should be a priority and will help to keep the change process moving forward and the re-setting of higher goals as key targets are met.

When there are large numbers of children underachieving in the one school, the SET team should enter the classroom and work alongside the teacher rather than withdrawing children as usually occurs. This can bring greater coherence to the child's instructional programme and facilitates learning, but substantial planning time must be set aside for it.

12.4 Question Three: Changes in Relation to Teachers

3. How would teachers respond to the challenges and change over time?

The findings in relation to question three are divided into two sections. The first section outlines the changes in relation to teachers personally and the second outlines the changes that teachers made to the instructional programme for literacy.

Teachers responded to the challenges with incredible commitment and invested in the process by spending considerable time and energy ensuring the changes they had committed to were successfully implemented in the classroom. They reported five major changes in relation to themselves personally (see chapter 10): greater expertise; increased self-esteem and self-efficacy; higher expectations for their students; recognition of the importance of life-long learning and the adoption of a research stance in the classroom; and their capacity to lead change within their school and facilitate the development of the school into a professional learning community.

12.4.1 Greater expertise

The opportunity to engage with the latest research in literacy had a profound affect on teachers. They reported that they found it to be a stimulating experience and one that they felt had changed them as teachers. They felt that they now possessed specialised pedagogical content knowledge and strategies (Shulman, 1987) that most regular teachers did not have, and that they had an understanding of the theory and philosophy underpinning the changes they had made to their practice. They also felt that they now had the capacity to respond successfully to the diverse needs of the learners in their classrooms. They felt that their enhanced expertise was as a result of the professional development they had undertaken, which they felt was very different to other forms of professional development that they had experienced in the past. They appreciated the value put on them as professionals and the time provided for collaboration, debate and professional dialogue with the researcher and colleagues over the two years of the study. The multi-faceted approach taken had offered teachers many avenues for constructing and transforming new knowledge. The professional readings and professional development sessions had helped them to re-conceptualise their thinking and practice in relation to literacy. This, combined with the demonstrations and observations of their teaching, helped them to experiment with new approaches and evaluate their effectiveness by closely monitoring

children's responses to instruction. They cited the sustained support over the two years as another factor that helped them change their practice.

12.4.2 Increased self-efficacy and self-esteem

The change in instructional approaches in the classroom contributed to strong gains in achievement for children and there was also a visible increase in children's motivation and engagement. As each new element of change was introduced and teachers had success with it, their self-esteem and self-efficacy increased further. As noted earlier, teachers care deeply about their students and are unlikely to embrace change unless they feel that it will benefit their students and so it is a key element of the change process and one which is important for sustainability. Seeing the dramatic changes that took place in children's reading, writing and word skills (as outlined below and in chapter 11) served to enhance teachers' self-esteem and their belief in their power to exert positive change. As Bandura (1995, p.3) contends 'the most effective way of creating a strong sense of efficacy is through *mastery* experiences.'

12.4.3 Higher expectations

Some researchers have suggested that in beginning the change process it is important to devise a vision statement to guide the whole process (Loucks-Horsley et al., 2003; Au, Raphael, & Mooney, 2007). However, it is difficult to commit to a vision statement when one has experienced many years of low achievement with students and when one is operating under adverse working conditions such as pupil absenteeism, poor discipline, low parental involvement and low student motivation and engagement. Research on disadvantage in the Irish context has indicated that teachers often have low expectations for their pupils (Eivers et al., 2004). Other research has also indicated that focusing on disadvantage and its effects over a number of generations can lead to a culture of low expectations and a certain defeatist view that the problems are insurmountable (Archer & Weir, 2004, p.30). According to Archer and Weir a 'deliberate attempts to raise expectations could be important in the disadvantaged context.'(p.30).

When the research-based conditions and support outlined in this chapter are in place in schools teachers have a better chance of achieving success in responding to children's needs and in raising achievement. Expectations rise as a result. As Bandura (1995, p.3) points out: 'successes build a robust belief in one's personal efficacy'. Once teachers began to experience success and saw the changes occurring in the motivation and engagement of the children as well as in their actual achievement, it empowered them further. As children's skills developed, teachers' expectations for them also grew. This was a key development. This is in contrast with teachers' views at the outset of the study where they felt that they had tried many things over the years to raise achievement but with few tangible results. This had dented their confidence, led to lower expectations for children and a concentration on a slower pace of instruction with more focus on lower-level skills at the expense of higher-order skills. Teachers were now no longer content for children to just master basic skills; they expected that children would develop into independent learners who could think critically and respond in deep and meaningful ways. They continued to raise the bar ever higher.

12.4.4 Life-long learning and a research stance

Successful schools are often involved in a collaboration with education departments in universities to support their development in literacy such as the CIERA school change project (Taylor et al., 1999), the Reading and Writing project at Teachers College Columbia (Calkins, 2001); and PartnershipRead/High Rise in Chicago and Hawaii (Au, Raphael & Mooney, 2007). In Partnership Read/High Rise and the Teachers College Reading and Writing project at Columbia University, teachers have the opportunity to attend courses at the universities and to earn credit towards a Masters degree. The school district in Chicago where PartnershipRead/High Rise is located funds a number of teachers each year to take Masters courses on condition that they work within the school for three years afterwards. In the Calkins project teachers can also take courses for credit and some are offered as summer institutes: intensive coursework over two weeks of the holidays allowing teachers to share innovative practice. Snow, Burns and Griffin (1998, p.331) make the point that attendance at courses is certainly important but that in-career development must be

broader and they argue that for the teacher of literacy 'ongoing support from colleagues and specialists as well as regular opportunities for self-examination and reflection are critical components of the career-long development of excellent teachers'. Teachers in this study also saw themselves as life-long learners by the end of the study: 'Well now, that's what the highlight is, this lifelong teacher learning, teaching for life, it will stay with us forever' (FIB/p.64). Teachers were actively involved in setting the change agenda and as their confidence grew they began to adopt a research stance (Kirkwood, 2001) in the classroom analysing children's work samples, test results and response to changes in teaching, and reflecting on what worked, what didn't and what needed to be refined or re-sequenced. Towards the end of the study, they also requested recognition of their new knowledge through the opportunity to gain a professional qualification in literacy. They enrolled in the Certificate and Diploma programme at St. Patrick's College, with a view to continuing to Masters' degree level. Coursework was waived due to the level of professional development that teachers had participated in but teachers completed the academic requirements for the qualification. Teachers reported that engaging in the academic work for the assignments had consolidated their knowledge base and given them further confidence in themselves.

12.4.5 Leadership skills and the development of a professional learning community

The development of professional learning communities is seen as an integral part of school change (Hord, 2008) and literacy reform in the US (Au, Raphael & Mooney, 2008; Kinnucan-Welsch, 2006; Calkins, 2001; Taylor et al., 2002, 2003). Hord (2008) states that professional learning communities have a shared vision of the changes they want to bring about and a set of common beliefs, values, and practices. As a result of their success with children and the enhanced expertise which they now possessed, teachers adopted leadership roles within the school and began to disseminate new practices to other teachers not involved in the study. They felt they could now provide support for their colleagues and expand the professional learning community to include all teachers in the school over the coming years. This they felt would create a school vision or 'unity of purpose' (Kellaghan et al., 1996) and would facilitate a whole school approach to literacy and the development of coherent

balanced literacy framework so children would have many years of quality literacy instruction.

Another key component of successful programmes is that there is one person on the inside in a leadership role who can guide teachers, ensure continuous growth and renewal in the change process and help to drive it forward. In PartnershipRead/HighRise (Au, Raphael & Mooney, 2007) and the CIERA school change project (Taylor et al., 2003), a teacher is designated as a leader. That teacher's role is to support teachers, model lessons, mentor teachers, and ensure the curriculum is updated yearly and that new targets are set as old ones are met. This requires a highly trained teacher who can communicate well and who can build a supportive and trusting relationship with teachers.

It is also essential for schools to have ownership over the change process and to drive the process forward themselves. In this study, teachers were of the opinion that there would need to be one teacher from the school appointed to the position of instructional leader in order to keep the change process going in the coming years and to replace the role of the researcher. It is interesting that teachers felt that they needed this, given that there is already a Cuiditheoir service in place and a literacy co-ordinator assigned to each DEIS school. There are two issues in relation to the current support service for schools. First, it is not known what specific level of expertise the DEIS co-ordinators have in relation to literacy and whether it is of a sufficient level to support schools in developing a balanced literacy framework for their own particular context. Second, the level of their workload is not clear. Again this is a key factor. If a co-ordinator is required to work with a large number of schools, they may not able to engage with an individual school with sufficient levels of intensity and frequency to keep momentum going in the change process.

12.5 Question Three: Changes in Relation to Instruction

In relation to their classroom programme for literacy teachers transformed it into a cognitively challenging balanced literacy framework (see chapter 9). These aspects of teacher change are presented in the following sections.

Teachers valued the opportunity to design an instructional programme that was in line with the research base but which also honoured the needs of children while providing autonomy for them to respond creatively to the pedagogical content strategies they had learned in unique and personal ways. Their enhanced expertise enabled them to create their own curriculum while honouring the balanced literacy framework (see Figure 12.2) and the pedagogical strategies agreed upon. The development of the emotional and imaginative dimensions of the child, the development of higher order thinking skills and the integration of lower-level skills into authentic contexts have been raised as areas requiring further development by the DES (2005c) and these areas were addressed in the balanced literacy framework.

12.5.1 Time

A ninety-minute 'sacred uninterrupted block of instructional time' (Taylor et al., 1999) was gradually put in place over the course of the first year of the study and was retained in the second year. This allowed for acceleration of instruction to take place. It also allowed for the implementation of a cognitively challenging curriculum as the blocks of time available within this allocation created opportunities for the deep engagement in text that is necessary for higher-order reading and writing skills to be developed and which is a feature of effective schools and teachers of literacy (Knapp et al., 1995; Taylor et al., 1999; Calkins, 2001). Children spent blocks of time meaningfully engaged in the acts of reading and writing, constructing their own interpretations of text in reading workshops and creating their own texts in writing workshops. This daily consistent and predictable schedule was cited as being a critical part of the change process. Children noticed this priority on literacy and they understood that it was a valued part of the school day and it served to heighten their awareness and motivation. This level of priority and focus on literacy has been cited as being largely absent from previous initiatives to raise achievement in Ireland and as being important to develop (Archer & Weir, 2004) and is a distinguishing feature of the most effective schools outlined in chapter 3. Teachers reported that even with 90 minutes devoted to instruction daily, that it was challenging for them to accommodate all of the essential literacy skills, embed them within the balanced

literacy framework and ensure that instruction was tailored to children's individual needs within this time frame.

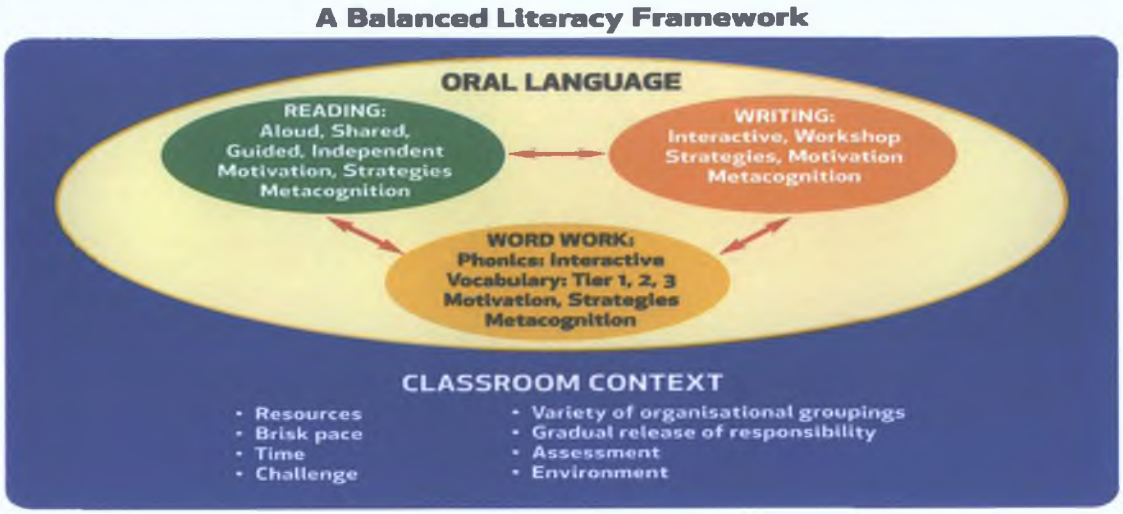


Figure: 12.2 The balanced literacy framework adopted

12.5.2 Greater cohesion

Maximum use of time was facilitated as the SET team came into the classroom and worked on the classroom teacher's literacy programme three days a week and a rotation of activities occurred in these blocks (see chapter nine), which changed according to the needs and stages of development of the children. This 'push-in collaborative teaching' (Taylor et al., 1999) allowed for differentiation and attention to children's specific needs in small groups and ensured greater cohesion between class and special programmes. It also ensured that children had access to an adult for every minute of this instructional time and as such were productively involved in academic learning activities.

12.5.3 Texts

The class reader was replaced by a wide range of levelled texts in year one and was broadened to include a variety of high-quality fiction and non-fiction books as children developed in confidence. Children were matched to texts at an instructional level and, through the use of formative assessment measures, a dynamic and flexible grouping model (Fountas & Pinnell, 1996) was used to ensure that they were

operating within their 'zone of proximal development' (Vygotsky, 1978). Having a wide range of texts allowed children to read a new text every couple of days and to read a text through in its entirety on a daily basis rather than a couple of pages a day, as often occurs when a basal reading series is used. This was hugely significant in building children's confidence, persistence, motivation and engagement and in helping them to develop a personal taste in reading (see later in this chapter for changes to children). Teachers reported that it was challenging to keep children in the correct groupings all of the time particularly in the early stages of the study as various children made leaps at different points and needed to move groups accordingly. Teachers reported that finding the time within the 90 minute framework to accommodate the use of running records to facilitate this response to children's needs was difficult but worthwhile.

12.5.4 Strategy instruction

A special emphasis was put on teaching a range of word-identification and comprehension strategies - the ones used by good readers and endorsed by the research - to children over the course of the two years (NRP, 2000; Pressley, 2002; Duke & Pearson, 2002; see chapter four for a discussion). Teachers very explicitly modelled and demonstrated strategies using a think-aloud approach which illuminated the use of the strategy for the children, making visible the invisible thought processes of expert readers. A gradual release of responsibility model (Fielding & Pearson, 1994) was used on the days the SET team were not working in the classroom, ensuring that children were not always ability grouped but had opportunities to work co-operatively in pairs and small mixed ability groups. This collaboration nurtured social interaction and enhanced motivation. Adopting the role of coach, teachers observed the children as they engaged with the strategies and scaffolded their efforts, documenting had a secure knowledge of the strategy and who needed more support. This information was used by teachers to plan future lessons. Metacognitive knowledge at the declarative, procedural and conditional levels (Paris 1995) was emphasised as children were encouraged to name and describe each strategy, to implement it appropriately, and to reflect on when to use it and why it was important to know. Children were encouraged to use the strategies as

tools to help them in their independent work (Pressley, 2002). This in turn enabled them to develop independence and to persist at tasks that they found difficult (see question 4 below).

12.5.5 Independent reading

Having a quality classroom library is a feature of the successful schools documented in the research literature presented in chapter three (Pressley et al., 2002; Lipson et al., 2004; Calkins, 2001) with many classrooms having libraries of up to 500 books. In this study a wide range of books was provided for classroom libraries. Children were encouraged to read widely and to take a book home to read at night in addition to the text that they were reading as part of their reading group. Within classes, they were often offered choice in texts for their reading group and for the strategy lessons that teachers taught. This served to heighten their motivation and engagement in literacy.

12.5.6 Writing workshop

A writing workshop was put in place daily and children had autonomy over writing topics. In writing workshop, children were taught how to generate ideas, draft, revise, edit, have a go at spelling unknown words and publish their work. Their emotional and imaginative development was nurtured as they were encouraged to develop their ideas and express themselves well on paper in a variety of genres. The social dimension of learning was recognised (Guthrie & Anderson, 1999; Allington, 2002) and children often worked with writing partners at various stages of the process, which scaffolded and encouraged the more reluctant writers. A daily audience was provided which served as an additional motivator. As Guthrie and Anderson (1999, p.36) suggest, 'when students can talk to each other about their writing, they learn an acute sense of audience and authorship'. Having the time and the choice of topic energised children and they invested thinking time both inside and outside school (Graves, 1995; Calkins, 2003). The writing workshop became a forum for children to 'demonstrate their creativity, individuality, voice and verve' (Grainger et al., 2005. p.1) and as we will see later in this chapter it was an important contributor to the

enhancement of children's motivation and engagement in literacy. It was also an important development in the Irish context as research indicates that teachers have difficulty fostering children's creativity and emotional development (DES, 2005b, 2005c). In addition, skill development such as spelling, grammar and punctuation were taught in the context of children's writing rather than in isolation using workbooks. Again, this was an interesting development as research has indicated that teachers in Ireland have difficulty teaching these skills in meaningful contexts (DES, 2005b, 2005c).

12.5.7 Word work

A strong word study programme ensured that children developed their word-attack and spelling skills and were able to see the purpose to learning these skills as they were applying them daily in the context of their reading and writing. An explicit systematic sequential phonics programme was devised that included a blend of synthetic and analytic phonics as recommended in the literature (NRP, 2000; Lewis & Ellis, 2006; Torgerson et al., 2006). Attention was also paid to the development of a sight vocabulary for high frequency words. These were taught daily in an interactive fast-paced multi-sensory manner with concrete hands-on activities using magnetic letters/whiteboards. A curiosity and interest in words was cultivated through a 'word consciousness' approach (Graves & Watts Taffe, 2002, p.150) and as children were reading or listening to high quality literature they were encouraged to notice 'rich, precise, interesting and inventive use of words' and to use these words in their writing.

12.5.8 Oral language development

Oral language activity was at the heart of reading and writing workshops and children had many opportunities to develop the art of conversation (make eye contact, take turns in the conversation, to listen critically and piggyback on each other's responses and to ask genuine questions of each other) in reading and writing workshops. This increased their self-esteem and self-confidence and was very

apparent in final interviews where they expanded on their ideas and interviews lasted three times longer than they had at the start of study.

In short, a cognitively challenging curriculum embedded within a balanced literacy framework was gradually put in place by the teachers who worked as a team. The programme motivated and engaged children while also ensuring they developed the key skills and strategies essential for fluent reading and writing.

12.5.9 Implications Arising from Question Three

The changes that occurred in teachers operate in a synergistic manner and the development of one element leads to the emergence of another. The development of teacher expertise to high levels whereby teachers understand the theory and rationale underpinning the changes they are making to their programme is a critical factor and is best achieved through the multi-faceted approach outlined earlier in this chapter. This lays the foundation for them to respond successfully to the needs of the children in their classroom, which in turn enhances their self-esteem and self-confidence leading them to embrace further elements of change, facilitates the adoption of a research stance in the classroom and cultivates an interest in life-long learning. As teachers experience success in relation to student achievement and motivation it leads to the development of higher expectations for students. Early success also helps teachers commit to deep and lasting change in the long term. Setting this chain of events in motion is contingent on the quality of the professional development provided.

Current support for literacy for disadvantaged schools is provided by DEIS co-ordinators. It is vital that all DEIS co-ordinators have a deep understanding of the complexities involved in the literacy process and the theory and philosophy underpinning the pedagogical strategies adopted. They also need to be able to work collaboratively with a school over time helping teachers to build a vision for literacy and the 'unity of purpose' (Kellaghan et al., 1996) that is characteristic of the most successful schools referred to in chapter three. The role of DEIS co-ordinators should be examined to ensure that they have a small case load that would enable them to

work with schools with the levels of intensity required to effect change such as occurred in this study and that their level of expertise is sufficient.

Given the success of the collaboration in this study between the researcher and the study school, the DES should consider facilitating partnerships between Colleges of Teacher Education and disadvantaged schools with a view to providing a combination of on-site professional development and course work for teachers. This could be done by funding a number of teachers each year to undertake specialist training in literacy (as is the case in recent international studies and literacy projects: Calkins, 2001; Au, Raphael & Mooney, 2007) so that they may adopt leadership roles and assist their school in developing and implementing a detailed coherent and spiralling whole school plan for literacy. This internal leadership is just as important as external leadership and more important in the long term if change is to be sustained and if schools are to evolve into professional learning communities. These teachers could then take on the role of reading specialists. Their high level of expertise would help them work collaboratively with fellow teachers in planning, demonstrating, observing and giving feedback on lessons. This would help to further build capacity within each school and sustain the change process.

A cognitively challenging curriculum incorporating the essential skills for literacy within a balanced literacy framework such as the one utilised in this study is not often provided for children in most schools (Pressley, 2001) and even less so in disadvantaged schools (Knapp, 1995), yet it has the potential to truly engage children in learning not just in school but in life. There is evidence that this is also the case in Ireland as evaluations of the implementation of the 1999 curriculum (DES, 2005c; DES, 2002) indicate that schools are having difficulty teaching higher-order thinking skills and fostering the emotional and imaginative development of the child. The benefits of a cognitively challenging curriculum should be made transparent for schools and the supports put in place to help teachers develop the skills to implement a curriculum approach such as this which has been found to be successful internationally in raising achievement in disadvantaged schools (Pressley et al., 2001; Knapp et al., 1995; Taylor et al., 2003)

A ninety-minute block of time as recommended in the Eivers et al. study (2004) was one of the factors contributing to the gains in achievement in this study.

It should be put in place for disadvantaged schools who are deeply involved in change efforts to improve literacy achievement and who have access to high quality professional development so that teachers receive guidance on how best to use that time. As Weir (2003) has observed, the provision of smaller class sizes in Breaking the Cycle schools since 1996 has not yielded improved achievement in literacy. She contends that is partly due to the lack of in-service support for teachers to help them adapt their teaching methods to suit the smaller class sizes. Likewise, provision of extra time without adequate support will not yield the desired outcomes. A predictable daily structure is imperative and leads to anticipation of these routines by the children (Calkins, 2001; Graves, 1994). Daily, explicit and systematic instruction on reading, writing and word work is essential and should be accompanied by ample opportunities for oral language development in each of these contexts. How the 90 minutes is divided should be determined by the stage of development of the children.

12.6 Question Four: Affective Changes in the Children

Question four included two parts. The first was the impact of the study on children's motivation and engagement. The second

4. **a)** How would the changes in instruction impact on the children's motivation and engagement with literacy and their knowledge of literacy strategies?

There was much evidence that children's motivation and engagement had increased greatly during the study and that they had evolved into readers and writers who both chose to read and write outside school as well as inside. There was also evidence that they had grown more strategic, were able to persist at difficult tasks, and had experienced increases in their self-esteem and self-confidence as a result. This evidence came from interviews with the children themselves (five children in each class, at three points of the study), the teachers (individual interviews at three points of the study as well as many group discussions, planning and professional development meetings) and the parents (group interviews at the end of the study).

12.6.1 Motivation and engagement

The majority of children reported that they read for fun everyday at home and that they took books home from the classroom library to share with parents, siblings and friends. Parents also reported that there was a large increase in the volume of reading at home and children were now asking for books as gifts, even when they went shopping. Parents also commented that children were reading longer and more complex books than they had expected for their age, that children were talking about books and were excited about what they were reading. Parents felt that the volume of reading had broadened children's horizons and given them access to a wide range of new information. There was evidence too that this enthusiasm for reading had had an effect on parents as some children reported that their parents sat and read with them at home and that 'they got into the book as well' (FI/Mary/p.9). Parents remarked that younger and older siblings were now more interested in books as a result of the children's engagement. There was equally strong evidence that children liked to write both inside and outside school. Children spoke animatedly about how and where they sourced their ideas for writing. Many children reported collaborating with other children in writing stories. Teachers were surprised that children maintained their motivation and enthusiasm for writing throughout the project and cited this aspect as one of the highlights. Parents also noted an increase in writing at home and mentioned that children were writing stories, letters and reports.

12.6.2 Increase in strategy knowledge

By the end of the study, children had a range of strategies for reading and spelling unfamiliar words. As well as word-identification strategies, children had a range of comprehension strategies to draw upon while reading to assist them in monitoring their understanding of text. While some had difficulty actually defining succinctly the essence of the each strategy, they were able to give a working example of each one, indicating that they had acquired metacognitive knowledge at least to the declarative and procedural levels (Paris et al., 1995). It was interesting to note that many children reported using the strategies in their independent reading and could give specific examples of when and why they had done so. The strategies that children reported using the most were the making connections (Keene &

Zimmerman, 1997), typically text-to-self and text-to-text connections, questioning, visualising, predicting and clarifying. Teachers reported that children were now using their strategies and that the strategies had been instrumental in helping children monitor their comprehension and become aware that they did not quite understand what the text was saying, whereas before the study, they would not have been as aware and would have let a lot go over their heads.

12.6.3 Persistence

The strategy work had another very important effect on the children; it gave them the motivation to persist even when they found the task in question difficult. Teachers had reported early in the study that children were passive in class and gave up easily. By contrast, at the end of the study, children were more active in class and more strategic in solving problems as they were engaged in reading and writing. They were less likely to ask for help and instead used the strategies they had been taught and applied them in a self-regulatory fashion (Pressley et al., 1998, 2001, 2002; Paris, Wasik & Turner, 1991).

12.6.4 Self-confidence

The vast majority of children had a very positive self-image both at the start and the end, which is not surprising for this age group (Eivers et al., 2004). Nonetheless, they were aware that they had grown as readers and as writers and were very proud of their accomplishments. A number of children reported that they would like to go on to college and they had aspirations to become doctors, teachers, authors, animators and many more besides. It is clear that the study had had a significant impact on children's achievement on standardised measures but also an incalculable impact on their own motivation, engagement and perception of self-efficacy.

12.7 Question Four: Changes in Achievement

The second part of question four related to the changes that occurred in children's achievement in reading, writing and spelling.

4. **b)** How would the changes in instruction impact on children's achievement on standardised tests of literacy?

12.7.1 Achievement outcomes in relation to reading

At the outset of the study, there were large numbers of children underachieving in literacy as measured by standardised tests of reading achievement. Statistically significant gains were made between the beginning and end of the study and effect sizes (Cohen's d) were considered to be large, indicating that progress was substantive. Had the programme not been implemented children would have been expected to hold their own but not make the substantial gains that they achieved in this study. By the end of the study, the number of children performing below the 10^{th} percentile on the DSRT had been reduced by three quarters. Eivers et al. (2004), recommended that the target set in the review of the National Anti-Poverty Strategy be revised to focus on disadvantaged schools in particular and that it should seek to halve the numbers of children performing below the 10^{th} percentile on nationally standardised tests of reading over a ten-year period. This was achieved within the two-year period of the current study. At the start of the study, no children were performing above the 80^{th} percentile. By the end of the study, 20% of the children were performing above this benchmark. In addition, almost 12% of the children in the study who presented with very low achievement at the outset of the study made exceptional progress and were performing in the top quintile at the end of the study.

There was certainly a cohort of children who made slow and uneven progress. This was true even with the additional support offered to them in the form of Reading Recovery, Resource Teaching or Learning Support, in addition to the enhanced classroom programme for literacy provided in the context of the current study. In most cases, support was sustained over the two years of the study. The majority of these children had documented learning and behavioural difficulties, as

well as problems with school attendance. The approach taken in this study (a collaborative one involving the SET team and classroom teachers, coupled with the implementation of a cognitively challenging balanced literacy framework and a 90 minute daily block of time) was therefore effective for the majority of children who were underperforming at the outset of the study.

It confirms that there will always be children who will need a sustained and individualised literacy programme throughout the primary school, even with a quality classroom literacy programme and quality small group and individualised early intervention in place. These children may also be experiencing difficulties across the board and may need an inter-disciplinary approach (e.g. involving health and other professionals) to enable them to reach their potential. A quality classroom programme can therefore contribute hugely to a reduction in the numbers of children requiring intensive and individualised support, but it will not necessarily address the needs of all very poor readers.

There were no statistically significant differences between boys and girls' reading achievement though boys performed marginally better than girls on the final measure. In addition, there were more boys (eight) than girls (three) reading in the top quintile of achievement at the end of the study and more boys (four) than girls (two) performing below the 10^{th} percentile.

After baseline data were collected in reading (January First class), children were administered standardised tests at three more points of the study in order to monitor progress. They made statistically significant gains each time with the exception of the middle period (June First class-January Second class) which included the summer holidays. While they did not make significant gains during that period, they maintained the improvements made in the first six months. It may be that some children fell back over the summer months and that it took the first half of the year to catch up again. This 'Summer Slump' has been well documented in research in relation to children in disadvantaged areas (Allington & McGill Franzen, 2003,). Cooper et al. (1996) have suggested that the loss in achievement is in the region of three months, while children in advantaged communities gain marginally or remain stable. Yearly summer losses can accumulate and leave children in disadvantaged communities two-three years behind their more advantaged peers by

the end of primary school. A second possibility is that the level of language at level two of the Drumcondra Sentence Reading Test was substantially more difficult than that at level one. There is evidence from teacher interviews that children were able to read the words on the test but did not get particular items correct because the meanings of the target words were not in their lexicons. In addition, quantitative data on word-identification (the Nonsense Word Test) suggest that some children had reached a ceiling on this aspect of literacy, supporting the teachers' views that language rather than poor decoding skills was holding children back. Paris' research (2005) indicates that phonics is a 'constrained skill' and once mastered contributes little to future literacy development while vocabulary and comprehension are 'unconstrained', making contributions across the life span. This underscores the importance of developing vocabulary and comprehension skills in tandem from the outset. In this study, greater emphasis was put on these aspects in year two. Given the breadth of the change process, it was not possible to introduce all changes at once and neither is it desirable to do so (Guskey, 1986), as participants may suffer overload and engage less in the change process. There is a delicate balance to be achieved between word skills and higher-level skills, particularly in the early stages of reading where children need to master word level skills quickly.

12.7.2 Achievement outcomes in relation to writing

At the outset of the study, samples of children's independent writing were collected to establish baseline levels against which to compare later samples of writing and measure any growth in achievement. Wilson's (2002) Criterion Scale (see chapter five for a description) was used to score the samples. As with reading, there was a wide range of achievement apparent in writing. Initially, there were large numbers of children performing at the lower end of the scale and relatively few performing at the upper end. Children had particular difficulty with spelling and with expressing their thoughts on paper. After analysis of writing samples, a writing workshop approach was put in place that sought to address these weaknesses. As with reading, there were statistically significant gains in writing achievement between the beginning and the end of the study. By the end, there were no children performing below Level One and only 4% performing at Level One. On the other hand, 4% were performing near

the top (Level 3A). There were a further 37% performing between levels 3B and 3C (see chapter 11 for samples of writing). Average achievement had risen substantially to Level 2A. Children had improved their achievement in relation to the quality and expression in their writing as well as on the basic skills such as spelling and punctuation, indicating that an equal emphasis on process and product can be successful in improving achievement while also nurturing the child as a writer. Even children for whom progress in reading was slow made gains in writing. There were no statistically significant differences in writing performance by gender.

12.7.3 Achievement outcomes in relation to spelling

Standardised tests of spelling achievement were administered in the second year of the study at the mid-year and end-of-year points. There were statistically significant gains made in spelling also. The numbers performing below the 10^{th} percentile reduced by almost one third in this period and the numbers performing above the 80^{th} percentile more than doubled, with 13% performing above the 90^{th} percentile. Performance in spelling was in line with the national average by the end of the study. There were no statistically significant differences in relation to gender.

12.7.4 The composition of classes affects achievement

Studies have shown that the greater the concentration of poverty levels in one school the more seriously depressed are the attainment scores of children on standardised tests of achievement (e.g., Eivers et al, 2004). The school involved in this study was a high-poverty school and was one of the original 33 urban Breaking the Cycle schools selected in 1996. In this study, there were greater numbers of children from challenging home backgrounds concentrated in the one of the four First classes and these children had difficulties concentrating and co-operating in class. In addition, there was a highly disruptive child with documented learning difficulties to whom a special needs assistant had been assigned. Attendance levels for this class were poorer than for the other classes. It is likely that a combination of these factors depressed the achievement levels in reading of this class throughout the study.

However, in the second half of the second year of the study, they did make statistically significant gains in reading. Shanahan (2001) has suggested that children in disadvantaged schools need several years of high quality instruction in order to increase achievement and in this case it may be that the effects of the balanced literacy framework was only beginning to make a difference to these children.

Clearly, a more even distribution of children across classrooms in First class could have had a positive effect on achievement. However, children in this and other classes with severe learning difficulties and special educational needs might also have benefited from a more intensive, multi-disciplinary approach to addressing their difficulties that focused not only on literacy, but other aspects of development as well.

12.7.5 Implications Arising from Question Four

The substantial gains made by children in this study in relation to achievement and motivation and engagement were as a result of an interaction between many factors including: the provision of a cognitively challenging balanced literacy curriculum which captured children's imaginations and which put equal emphasis on lower and higher-order skills, the resources provided, the choice that was afforded them in reading and writing workshops, the small group work facilitated by the SET team which allowed their individual needs to be met, the value which they witnessed being put on literacy and not least, the involvement of their parents. Thus, schools need to be made aware that achieving substantial change is as a result of an interaction among many factors.

In this study, there was a slow down in reading growth in year two of the study. While this would warrant further investigation, it would also be important to make teachers in junior classes in primary school aware of the importance of developing comprehension strategies and vocabulary along side word work and professional development should provide guidance on how to get this balance right.

Where there is an imbalance in the composition of classes at the same grade level, schools should re-distribute children across classes at the end of a term or school year. High concentrations of behaviour problems and children from

challenging home backgrounds in any one classroom may adversely affect these children's achievement and also that of their classmates as instructional time is eroded by management issues.

12.8 Question Five: Parental Involvement and Perspectives

5. In what ways were parents involved in their child's literacy development and what perspectives would they hold about their child's motivation and engagement with literacy during the study?

12.8.1 Parental involvement

As outlined in chapter three effective schools have strong home-school partnerships and reach out to parents in creative ways to involve them in their children's education (Lein et al., 1997; Puma et al., 1997; Designs for Change, 1998; Taylor et al., 1999; Johnson et al., 1999; Lipson et al., 2004). Parental involvement in children's literacy development is essential and can work in several beneficial ways. It can work to reinforce skills and concepts taught in school and as such can have a direct effect on achievement. It can also serve to motivate and engage children as they see their parents taking an interest in their work and the praise and encouragement received can sustain them as they work to improve their achievement.

While a major emphasis on parental involvement in literacy was beyond the scope of this study, there was evidence that the small amount that was done to involve parents was of benefit to the children's literacy development. The majority of parents invited to interview took up the invitation and were delighted to be asked for their views. All of the parents who came to interview reported working with the children on their reading and writing homework. Most of the work the parents took on was in the area of fluency, which the research has identified as being one of the essential components of a reading programme (NRP, 2000). At parent teacher meetings teachers explained the basic principles involved in fluency training and suggested to parents that they work on choral reading, echo reading and reading with

expression. Parents were very happy to take on this role and were positive about it in interviews.

In addition, at the end of year parents were invited into to the school to observe their children reading and writing in the classroom. Children showed the parents their writing folders and read aloud sections of their favourite texts for them. This contributed to the motivation and engagement of the children and also spurred the parents on to maintain the time they were investing in the children's literacy development as they could see firsthand the benefits to the children and the value that the school, teachers and other parents were putting on literacy.

Given that parents may not have had successful experiences in school themselves and may have low academic qualifications (details on this locality obtained from the 2002 census report indicate only 5% of adults have a third level qualification compared to the national average of 26%) it was encouraging that teachers felt at the end of the project that parents were more at ease engaging with the school and commented that the limited amount of contact that had been initiated had had a positive effect. It was however, an aspect of the change process that teachers felt would be important to develop further in the future.

Sénechál's (2003) meta-analysis of parental involvement programmes showed that parental involvement had a positive effect on children's reading acquisition and it was most effective if parents were trained to use a specific reading strategy that children were working on in school. One of the four teachers took the issue of parent involvement on as a research project for her diploma in the year following the study. A handbook was developed explaining literacy development in parent friendly language (Marsh, 2006), and included strategies for parents to use at home at the various stages. In addition, parents were invited into the classroom on a number of occasions and children modelled each of the strategies for them. Further, by having a number of sessions, parents had opportunities to raise and clarify issues (Marsh, 2006). This project is ongoing and should shed light on what is useful to include in a home-school partnership for literacy in the Irish context.

12.8.2 Implications Arising from Question Five

Programmes designed to enhance the literacy skills of pupils in disadvantaged settings should include a strong focus on parent involvement that includes provision of information, training in specific strategies to use with their children, and frequent feedback on their children's progress and needs. This element should be introduced as soon as possible in an intervention.

Parents should be made aware of the summer slump in reading outlined earlier in this chapter and their help should be enlisted in supporting reading and writing development during the summer months. Activities could include setting aside time for reading on a daily basis during the summer months, visiting the library weekly to obtain new books, and supporting initiatives in the community designed to enhance reading (e.g., summer book clubs, writing workshops).

12.9 Improving Literacy Achievement in a Disadvantaged School

This study began with the following overarching question:

How might an Irish school with designated disadvantage status with large numbers of children underachieving in literacy improve the literacy achievement of those children?

There is 'no quick fix' (Allington & Walmsley, 2007) to the complex problem of underachievement in literacy. There is no checklist or magic formula which if adhered to will produce success. Rather there are many home, school and classroom factors that interact in synergistic ways to create conditions that either support achievement or act as barriers to success. The research presented in chapter three indicates that successful schools and teachers have several defining characteristics that distinguish them from their more typical peers and the findings from this study converge with that body of research.

As summarised in this chapter there were many factors at work that acted as catalysts for the emergence of other equally critical factors and which contributed to the observed gains in achievement, motivation and engagement of the children and

which facilitated the changes observed in teachers and in the instructional programme for literacy.

Of critical importance to the study was the nature of the collaboration between the researcher and the teachers involved in the study and the phased approach taken to the introduction of the balanced literacy framework. The multi-faceted professional development enhanced teacher expertise and opened up new ways of working with children. The professional readings communicated to teachers that the approaches they were undertaking had been successful in contexts similar to their own and the demonstrations, the planning meetings, the provision of resources and the collaborative approach taken gave teachers the confidence to experiment and take risks with their teaching. The introduction of a daily, uninterrupted 90 minutes for instruction signalled a priority and value on literacy and provided the time necessary for a deep exploration and creation of texts. The 'push-in collaborative teaching' (Taylor et al., 1999) allowed for instructional density and differentiation with every child academically engaged for every minute of this instructional block.

A second vital element was the design of the balanced literacy framework, which was cognitively challenging, integrated, coherent and took a systematic approach to the development of the essential skills for literacy. Yet this framework allowed for the development of children's creativity, capitalised on their interests and offered them choice and control over activities. Formative assessment guided the design of teachers' lessons, which were focused on students' needs and the development of both lower and higher-order skills. Teachers adopted a facilitative role, scaffolding, and coaching students as they engaged in applying word-identification and comprehension strategies that teachers had explicitly modelled. Challenging activities were also within their zone of proximal development ensuring success. Teachers understood that literacy is socially mediated and provided a variety of classroom groupings that allowed for collaboration in mixed ability pairs and small groups. A high priority was put on oral response to reading and writing in lessons, giving children the opportunity to engage in real conversations about what they were reading and writing, just as real readers and writers do. As Lucy Calkins (2001, 15) reminds us 'Teaching reading then is like teaching living' and so students were taught how to listen, to respond, to question, to debate, to agree and disagree and to have the confidence to do so, all of which are key life skills. They were

encouraged to develop a personal taste in reading and the classrooms were flooded with books which children chose for independent reading, both inside and outside school, and also for guided reading lessons with the teacher. Reading and writing were promoted at home and many parents took an active role in supporting the work of the classroom. As Pressley (2001) and Knapp et al., (1995) remind us, this kind of curriculum is unfortunately not the staple diet for most children.

These factors created the conditions to motivate and engage children in ways that teachers had not seen before and resulted in positive gains in achievement. In turn, the response of the children to the changes and the gains in achievement served to strengthen and further enhance teachers' sense of self-confidence, self-esteem and self-efficacy and just as importantly, raised their expectations for the children. Success fuelled teachers' desire to learn more about the literacy process, to introduce more changes in line with the research base and to share their expertise with their colleagues not yet involved in the study. It created a school dynamic and atmosphere that showed them there was much they could do to enhance achievement despite the challenging conditions that are an inevitable part of life in a disadvantaged school. It contributed to a school vision in which all staff were focused on the goal of not only enhancing achievement but developing children as readers and writers who could use literacy as a tool for 'personal empowerment' (www.UNESCO.org.: Education page). While the study had started small with one class grouping and eight teachers, it rippled across the school and contributed to the development of the school as a professional learning community committed to lifelong learning. In the successful schools outlined in chapter three professional development was not an event but 'a way of life' (Lipson et al., 2004) and certainly by the end of this study teachers were aware that 'truth is not stagnant' but evolving (Burke Johnson & Onwuegbuzie, 2004, p.18). They adopted a research stance to their teaching and felt they had the tools at their disposal to access the research base in the future as it continues to evolve so that they could continue to build their knowledge base and inform their practice. They also enrolled in the certificate diploma programme at St. Patrick's college with a view to continuing to Masters level.

Schools wishing to replicate this study then firstly need to access the kind of multi-faceted high quality professional development such as that utilised in this study which can help them get started on the process of change and which can help them

design a systematic coherent cognitively challenging framework in an incremental fashion that will suit their own context and children. In this study, the professional support given was intensive and distributed over two years, and the role of the researcher faded out in the year following but was still available to the school as it continued to build and expand the change process. This gradual release of responsibility model for change has also proven effective in other countries (e.g., Au, Raphael & Mooney, 2007) and holds much promise for the future. Schools must also be prepared to put the support structures in place to facilitate the level of professional dialogue, reflection and collaboration required for success and also be willing to sustain efforts over many years.

The 90-minute block for literacy also needs to be given serious consideration. Alongside the professional development and provision of resources, it is a key factor in raising achievement. Given the breadth of the primary curriculum and the short school day in Ireland, providing this time is a contentious issue as it requires hard choices, and time given to literacy means time taken from another subject. However, research nationally and internationally indicates that the gap between children in disadvantaged and advantaged schools exists before school starts and once in school that gap remains. Even more disturbing in the Irish context, is the research that indicates that children's literacy achievement declines as they progress through the primary classes (DES, 2005b; Weir, 2003), particularly in the most disadvantaged schools. Clearly, children in disadvantaged schools need accelerated instruction if they are to catch up with their more advantaged peers; therefore, the provision of the 90 minutes is an equity issue and is considered to be a minimum requirement internationally in these contexts. Poor literacy skills also act as a barrier preventing children from accessing so many other subjects throughout the school day. In the view of this researcher, the 90 minutes is therefore uncontroversial. However, time alone is insufficient and must be accompanied by high-quality professional development so that the additional time is used well.

This study invested in teacher knowledge for literacy rather than a specific programme for literacy. Of course, programmes are attractive for policy makers; they are packages which can be implemented with training and are easier to put in place than committing to the development of every teacher to high levels of expertise. But programmes lose their shine over time and more importantly they go out of date as

new research sheds light on the literacy process. It is also difficult to keep teachers focused on fidelity to a programme, particularly if adequate support has not been given to teachers to help them adapt the programme to their own particular school and classroom context. Then again if too many changes are made to a given programme it can dilute its effectiveness. Mandating programmes can also lead to a de-professionalisation of the profession, compromising teachers' decision-making capacities and their autonomy and can lead to a decrease in morale, making it difficult to retain teachers in the system, as has happened in the UK and USA in recent years (Hall, 2006). For these reasons, comprehensive reform models such as Success for All (Slavin, 1987) which are heavily prescriptive, have had uneven success rates in changing achievement in literacy. It would seem that there are lessons to be learned from this research for the Irish context which to date has focussed on providing support for classroom teachers in DEIS schools to implement First Steps, an Australian programme, and on implementing early intervention through Reading Recovery. It remains to be seen if this strategy will be effective. While it is more difficult to achieve, it would seem to make sense that a commitment to investing in classroom teachers with whom children spend most of their day and helping those teachers to build their expertise in literacy is more likely to result in long-term gains for schools and children. In addition, the research base on literacy is constantly changing and updating as new research illuminates issues. What is critical then is to give teachers the tools to enable them to stay abreast of the research and know where to go to access the latest research.

Much is now known about how to teach literacy successfully; the challenge remains to find ways to disseminate this knowledge to schools and to support schools effectively as they work toward change. As one teacher said at the end of this study: 'I think it affirmed for me that if the right structures are put in place and resources and thinking, something amazing can happen, do you know? (FIA/p.53). It is time policy in Ireland caught up with the research base and reality on the ground.

12.10 Limitations

This study has a number of limitations. First, the scale of the study is small. It involved one class grouping (First class) in one school over a two-year period and

included four classroom teachers, four special education teachers and 56 children. Second, the sample school was a highly disadvantaged school, one of the original 33 schools in the Breaking the Cycle scheme, and a school in Band One of DEIS. As such, it was operating under more challenging conditions than may be found in other less disadvantaged schools and so the findings from this study may not have the same implications for schools that are less disadvantaged. Third, the role of the researcher within the study may have had an effect. She was present in the school on a regular basis, provided the professional development and collaborated with teachers on the change process. Her presence may have contributed to a halo effect as teachers and children rose to meet the high expectations and goals set. Fourth, the teachers involved in this study were highly committed and exceptionally enthusiastic about the change process; they worked incredibly hard to transform goals and targets into realities. This level of commitment may not be forthcoming in every school and as such the same findings may not be achievable in those settings. Fifth, within the study itself, a greater emphasis could have been put on parental involvement. This was recognised by teachers towards the end of the study and one teacher developed a parental component for her Diploma studies. Findings could have been further enhanced with more parental support from the outset - especially for those who made the least progress, including those with very poor attendance. Sixth, greater attention would need to be given to vocabulary instruction from the outset of the study. In the first year of the study, in the word study element of the balanced literacy framework, more attention was focused on development of children's sight vocabulary, phonic skills and word-identification strategies than on raising their word consciousness. As teachers noted by the end of the first year, children were accurately decoding words on the tests but still getting the answer wrong because the words were not in their lexicon. This indicates that a broad-ranging vocabulary programme would be required to help children develop knowledge of more complex syntactical structures as well as developing wider word knowledge and a curiosity about language as well as encouraging them to use newly acquired language in oral and written activities.

12.11 Areas for Future Research

Arising from the findings of this study, a number of areas would be worthwhile investigating further:

1. There were a number of children (about one sixth) whose initial achievement was low and who made poor progress over the course of the study. These children presented with a number of problems including specific language disorder, problems controlling behaviour, chronic attendance difficulties and very challenging home backgrounds. There were also some for whom further investigation would be warranted to discover why there was such slow progress (there may perhaps have been an underlying learning difficulty). It would be worth exploring if a more intensive multi-disciplinary approach would work for these children and what could be done to support their families so that the children could reach their potential.

2. A more focused and multi-faceted parental involvement programme should be designed and evaluated to measure the effect of parent involvement on children's achievement, motivation and engagement. Future interventions of this nature should recognise and build on the 'funds of knowledge' that parents have and use this to enhance the design of the programme.

3. The effects of the so called 'summer slump' should be measured in the Irish context and strategies for diluting it should be explored.

4. A language programme focusing on vocabulary development for reading and writing should be implemented and evaluated. Such a programme should start early in a child's schooling and could include the following components:

    - Wide reading to expose children to richer and more sophisticated language and syntactical structures than their normal speaking vocabulary.

    - Explicit teaching of tier 1, 2 and 3 words (Blachowicz & Fisher, 1996) Repetition of and multiple exposures to new words within rich contexts would be necessary so words are not taught in isolation. Children should

be encouraged to use their newly acquired vocabulary in oral and written activities.

- Explicit teaching of word-identification strategies that help children to unlock the meaning of new words.

- Development of a 'word consciousness' (Graves & Watts-Taffe, 2002) to encourage children to notice words, be curious about them and to appreciate apt use of language in their reading materials and in their own writing is critical. This can be done through literature circles, reciprocal teaching and share sessions in the writing workshop.

5. A follow-up study should be implemented to track the development of the children in the current study to see if they maintain their gains as they progress through the rest of primary school. In addition, the sustainability of the change process within the study school should be examined, as should their efforts to spread the initiative more widely within the school. Documenting the challenges in this process would lend further insight into the level of support required by a highly disadvantaged school in reducing underachievement.

6. The programme utilised in this study draws on an instructional framework based on principles and practices suggested by the current research on literacy, professional development and school change. As such, it is not a prescriptive package; rather it relies on teachers' expertise to design and mould lessons to suit their own school and classroom context. It would be worth investigating how this 'home-grown' model compares with 'off-the-shelf' packages such as First Steps which is being widely disseminated as part of the DEIS scheme. Which programme has the strongest effects on achievement? Which impacts most on teachers' and children's motivation and engagement? Which lends itself most to sustainability and commitment to the change process? Which is more effective in terms of the financial outlay?

7. The current study should be replicated in other highly disadvantaged settings to see if the findings can be replicated or improved upon. It should also be replicated in less severely disadvantaged settings.

8. The research base is not conclusive as to the length of time required for lasting change to occur or the optimum combination of professional development elements. It would be worth exploring further exactly how much professional development is required to help a school transform into a professional learning community that is able to successfully address achievement problems. Is it best delivered intensively or distributed over time? When is the optimum time for external partners to fade out of the picture and what kinds of support do schools need in the long term to sustain changes made? What combinations and variations of professional development are helpful?

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APPENDICES

Appendix A

Letter of Consent: Teachers

Dear ,

Thank you for agreeing to participate in St. Patrick's College Literacy Initiative research project (LIP) which also forms part of the work for my Ph.d thesis.

This project seeks to investigate how best to support schools in developing best practice in literacy instruction and in so doing to enable children to reach their full potential as readers and writers. We aim, through collaboration with you, to examine best practice internationally and to support the school in developing a literacy framework that suits its needs. In the first phase of this project, we will work with teachers and children involved in the first classes in the school.

As part of this research project you may be asked to complete questionnaires and to participate in individual and focus group interviews to ascertain your views on teaching reading and writing and also on how the research project is progressing. These will be digitally recorded. You may also be asked to keep a journal to record your thoughts and questions as you implement change and to document the change process. This will be especially useful to provide insights to inform the next phase of the project.

In developing the framework, we anticipate working with you in a number of ways: providing professional reading material to inform practice; providing classroom resources to help you translate theory into practice; being on-site in the school to discuss your needs and questions and to debate issues; working alongside you in the classroom from time to time. All responses will be treated with the utmost confidentiality. Your anonymity will be preserved in all data collection and analysis. At no time will you or your school be identifiable through any documentation.

In the event that a difficulty arises, you would, of course be entitled to withdraw from the study, though my hope is that such a situation will not arise. I would be grateful if you would sign the attached permission slip to formally indicate your consent to participate in the research study.

We look forward to collaborating with you and are excited about the project.

Yours faithfully

Eithne Kennedy on behalf of LIP

I agree to participate in the Literacy Initiative Project.

Signed_____

Letter of Consent: Children

St. Patrick's College
Drumcondra
Dublin 9

Dear Parents/Carers,

Your child's school has agreed to take part in a Literacy Research Project which aims to improve your child's confidence in Reading and Writing. The first phase of this project will involve all of the teachers and children in the First classes in the school, and will run until the end of this school year.

As part of this research work, my colleagues and I will be working within the classroom with both teachers and children. Also, your child may be selected to take part in an interview to find out his/her views on and attitudes towards reading and writing. This will be digitally recorded. Your child's name or the name of the school will not appear on any documents. Information provided by your child will always be anonymous and will only be shared with other professionals for the purposes of the research study.

In order for your child to take part in this study we would be most grateful if you could sign and return the permission slip at the end of this note. If you have any questions about this project please do not hesitate to contact the principal.

We are very excited about this project and look forward to working with you, your child and the school. Many thanks for your support.

Your Faithfully,

Eithne Kennedy on behalf of St. Patrick's College Literacy Project
Education Department
St. Patrick's College
Drumcondra
Dublin 9

I have discussed the project with my child and I consent to my child's participation in the research project.

Signature:_____

I do not give my consent for my child to participate in the research project

Signature:_____

Letter of Consent: Parents

St. Patrick's College
Drumcondra
Dublin 9.

Dear Parent/Carer

Thank you very much for taking the time to attend this group interview about the Literacy Project.

Any information you provide will always be anonymous and will only be shared with other professionals for the purposes of the research study.

Yours Sincerely

Eithne Kennedy

I agree to participate in the interview:

Signed: _____

Appendix B

Questionnaire

Section One: General Information

1. How many years have you been teaching? *(Write the number of years in the box provided):*

   ❑ Years teaching (excluding career breaks)

   ❑ Years teaching at <u>this</u> school

2. From the list below indicate the positions you have had as a teacher <u>and</u> the number of years you have had the position. *(Tick all that apply and write the number of years.)*

Classroom teacher	Resource teacher	Learning support	**Other(*please specify*)**
No. years ❑	No. years ❑	No. years ❑	No. years ❑

3. Please indicate your teaching qualifications. *(Tick all that apply)*

N.T	❑
B.ED	❑
M.ED	❑
Grad. Dip	❑
Other *(please specify)*	

Section Two: The Teaching of Reading and Writing

4. How many (a) pupils do you currently teach? (b) attend learning support (L.S.) or Resource (Res.)? *(Enter the number of pupils in the relevant box)*

Junior Infants	**Senior Infants**	**First Class**	**Second Class**

☐ Chn. class	☐ Chn. class	☐ Chn. class	☐ Chn. Class
☐ Res. L.S.	☐ Res. L.S.	☐ Res. L.S.	☐ Res. L.S.

5. How much time per week do you normally spend teaching English (include oral language, reading and writing)? *(Write the hours and minutes in the boxes)*

   ☐hrs. ☐min. per week

6. How much of this time is spent on (a) reading and (b) writing? *(Write the hours and minutes in the boxes)*

   (a) Reading: ☐hrs.☐min. (b) Writing *(Composition)*: ☐hrs.☐min.

7. What percentage of your instructional time for (a) reading and (b) writing is spent teaching whole class, small group, individual children? *(Write the %)*

Reading	**Writing Composition**
Whole class ☐% time	Whole class ☐% time
Small Group ☐% time	Small Group ☐% time
Individual ☐ % time	Individual ☐ % time

8. How many reading groups do you have in your classroom? *(Write the number in the box)*

   ☐ Number of groups

9. When you divide your class into small reading groups, do the same pupils stay in the same group whenever there is group teaching? *(Tick the box)*

Always	**Sometimes**	**Never**
☐	☐	☐

10. What information do you draw on when forming reading groups? :

    _____

    _____

    _____

11. How often do you use the following assessment tools to assess children's reading and writing skills? ***(Use the list below to describe the frequency with which you use each of the following assessment tools. Tick each row once.)***

Assessment tool	Daily	Weekly	Monthly	1/2 a term	Never
Observation	❑	❑	❑	❑	❑
Anecdotal records	❑	❑	❑	❑	❑
Published checklists	❑	❑	❑	❑	❑
Running records	❑	❑	❑	❑	❑
Curriculum profiles	❑	❑	❑	❑	❑
Rating scales	❑	❑	❑	❑	❑
Portfolios	❑	❑	❑	❑	❑
Diagnostic tests	❑	❑	❑	❑	❑
Screening instrument	❑	❑	❑	❑	❑

12. Indicate with whom you use the supplementary readers *(Tick one box only)*:

All students	**Less able** pupils only	**High achieving** pupils only
❑	❑	❑

13. Which of the following literacy contexts feature in your literacy programme? *(Tick the contexts and the indicate the frequency in the box provided)*

	Contexts	Daily	Two/three times a week	Once or twice a month	Once or twice a term	Never
(a)	Teacher Reading Aloud to Class	❑	❑	❑	❑	❑
(b)	Language Experience Approach	❑	❑	❑	❑	❑
(c)	Shared Reading *(e.g. Big Books, poems, L.E.A. texts)*	❑	❑	❑	❑	❑
(d)	Lessons using class reader	❑	❑	❑	❑	❑
(e)	Independent Reading (children choose own books to read)	❑	❑	❑	❑	❑
(f)	Interactive Writing *(teacher and /child share composing and writing of a text on a chart)*	❑	❑	❑	❑	❑
(g)	Writing Workshop	❑	❑	❑	❑	❑

14. Indicate the frequency with which you teach the following literacy skills to your **current** class *(Tick one box in each row)*

	Skill	Often	Sometimes	Never
(a)	Alphabet	❑	❑	❑

(b)	Phonological Awareness	❑	❑	❑
(c)	Phonics	❑	❑	❑
(d)	Sight words	❑	❑	❑
(e)	Fluency	❑	❑	❑
(f)	Comprehension strategies	❑	❑	❑
(g)	Vocabulary	❑	❑	❑

15. When teaching a particular skill or strategy for reading and writing how often would you do the following? ***(Please tick the box to indicate the frequency with which you engage in the activity)***

	Activity	**Daily**	**A few times a week**	**Once/twice a month**	**Never**
(a)	Explain how the skill will enhance reading/writing	❑	❑	❑	❑
(b)	Demonstrate by thinking aloud how to use the skill	❑	❑	❑	❑
(c)	Have children apply the skill by completing a worksheet	❑	❑	❑	❑
(d)	Have children apply skill in context of own reading or writing	❑	❑	❑	❑
(e)	Have children reflect on the skill and share how they used it in their reading/writing	❑	❑	❑	❑

16. Indicate which of the following challenges affect your teaching of reading and writing. *(Tick all that apply)*

	Challenge	**Large Effect**	**Moderate Effect**	**Little/No Effect**
(a)	Children's oral language skills	❑	❑	❑
(b)	Poor attendance at school	❑	❑	❑
(c)	Not enough classroom resources	❑	❑	❑
(d)	Disciplinary issues	❑	❑	❑
(e)	Lack of parental involvement	❑	❑	❑
(f)	Other *(Please specify)*			

17. How would you rate the involvement of parents in supporting the literacy development of their child? *(Tick the box that best applies)*

Excellent	**Very Good**	**Good**	**Poor**
❑	❑	❑	❑

18. What in your opinion could be done to increase parental involvement in their child's literacy development? *(Write your suggestions on the lines below)*

_____

_____

_____

_____

_____

19. Which of the following resources do you have in your classroom? *(Tick all that apply)*

Overhead projector ❑ Big Books ❑

Large magnetic board ❑ Levelled texts ❑

Individual magnetic boards ❑ Supplemental readers ❑

Sand tray ❑ Classroom library ❑

Pocket chart ❑ Computer ❑

Games for phonics/sight words ❑ Literacy software ❑

20. If you have a classroom library indicate approximately how many books do you have? *(Write the number of books in the box)*

[ ] No. books

21. How would you rate your library in relation to its potential to facilitate the teaching of reading and writing as outlined in the Primary English Curriculum 1999? *(Tick the box that best applies)*

Excellent	**Very good**	**Good**	**Basic**	**Poor**
❑	❑	❑	❑	❑

Section Three: School Planning

22. How involved were you in the development of the your school plan for English? ***(Tick the box in the appropriate column)***

No plan exists	**Developed before I joined the school**	**No involvement**	**Some involvement**	**Great Involvement**
❑	❑	❑	❑	❑

23. To your knowledge, has the school plan been revised since the implementation of the 1999 Primary English Curriculum? *(Tick yes/no)*

Yes ❑ No ❑ Don't know ❑

24. In your opinion does the school plan reflect the curriculum emphasis on (a) a process approach to writing? and (b) a range of approaches for reading?

Yes ❑ Writing No ❑ Writing Don't know ❑ Writing

Yes ❑ Reading No ❑ Reading Don't know ❑ Reading

25. Is there a whole school approach to (a) the teaching of writing? and (b) the teaching of reading? *(Tick one box in each row)*

Yes ❑ Writing No ❑ Writing Don't know ❑ Writing

Yes ❑ Reading No ❑ Reading Don't know ❑ Reading

26. On a scale of 1 to 5 how consistently would you consider the plan is being implemented throughout the school? *(Circle the number that best represents your opinion: 1 being poorly adhered to, 5 being closely adhered to)*

1_____2_____3_____4_____5

poorly adhered to closely adhered to

27. To what extent do you collaborate in planning instruction in English with your colleagues? *(Circle the number on the line that best reflects the extent of your collaboration, 5 being a lot and 1 being very little):*

(a) Other teachers of the same class level in my school:

A little A lot

1_____2_____3_____4_____5

(b)

Teachers at other class levels in my school

A little A lot

1_____2_____3_____4_____5

(c)

Learning support and resource teachers and HSCL teacher

A little A lot

1_____2_____3_____4_____5

28. Have you supported your colleagues in your school in the teaching of writing? *(Tick yes/no and elaborate if yes)*

No ❑ Yes ❑ *(If yes indicate how on the lines below)*

_____

_____

_____

29. Have you supported your colleagues in your school in the teaching of reading? *(Tick yes/no and elaborate if yes)*

No ❑ Yes ❑ *(If yes indicate how on the lines below)*

30. In relation to the teaching of reading and writing what aspects would you like to see developed at (a) a whole school level and (b) a personal level? *(Make a list in the columns below)*

School Level	**Personal Level**

31. Give a brief synopsis of **a typical** reading and writing lesson with your current class (e.g. time, activities, organisational groupings, resources). *(Write on the lines below)*

Appendix C

Technical Information: The Drumcondra Sentence Reading Test

The standardisation sample in May 2002 was stratified according to school size and gender. This resulted in a sample of 100 large, medium and small junior and senior schools being chosen with approximately 2000 pupils participating at each class level, 1000 for each form of the test. There was a 93% response rate at school level.

Reliability of a test provides an indication of the confidence a test user can place in the results obtained and is concerned with the consistency of scores by the same person on the same test i.e. the similarity of a person's scores from one measurement to another. The DSRT provides an estimate of reliability using the Kuder-Richardson Formula (KR_{20}) – a measure of internal consistency. KR20 co-efficients for First and Second classes, the target group in the study, are high ranging from 0.93 to 0.95. The corresponding standard errors of measurement are shown in Table 3.3.

DSRT Standard Errors of measurement in Raw Score and Standard Score Units

Level/Form	Raw Score	Standard Score
1A	2.3	3.2
1B	2.4	3.3
2A	2.3	3.9
2B	2.3	3.7

Technical Information: MICRA-T

The original MICRA-T was standardised in 1988 and consisted of two forms and three test levels suitable for use with First to Sixth class. The entire test was revised in 2001/2 and has been available since 2004.

In standardising the MICRA-T, a multi-stage sampling method was used. This consisted of a combination of proportionate probability sampling and random sampling which resulted in 105 schools being invited to participate in the standardisation; 50 for the Autumn standardisation and 55 for the Summer standardisation and resulted in a response rate of 92% and 94.5 % respectively. A total of 698 children participated in the autumn on both forms of the test and 915 participated in the summer.

Like the DSRT, internal consistency reliability was calculated using the Kuder-Richardson Formula (KR20). This yielded test-retest coefficients for Form A and B as .97 and .96 respectively. The standard errors of measurement for raw scores for the MICRA-T are shown in table 3.2. Standard errors of measurement for standard scores are not reported in the test manual. The original MICRA-T was standardised in 1987 and consisted of two forms and three test levels. The standard errors of measurement reported in Table 3.2 relate to the revised test which was standardised in 2002-2003 and which now consists of four test levels with two forms within each.

MICRA-T Standard Errors of Measurement in Raw Score Units

Level/Form	**Raw Score**
1A (first class and some senior infants classes	2.05
1B (first class and some senior infants classes	2.21
2A (2nd and 3rd class)	2.65
2B (2nd and 3rd class)	2.70

Technical Information: Drumcondra Primary Spelling Test

The Drumcondra Spelling Test was standardised on a nationally representative sample of children in first to sixth class in May 2002. The sampling procedures mirrored those of the Drumcondra Sentence Reading Test already outlined above. A stratified sample of 100 schools was selected yielding 2000 pupils at each class level with 1000 participating in Form A and 1000 participating in Form B. Again there was a response rate of 93%. Internal consistency was calculated using the Kuder-Richardson Formula (KR_{20}). The reliability co-efficients for the test range from 0.949 to 0.965 and as such render the test internally consistent. As outlined above a test can only give an estimate of a pupil's achievement and in reality a pupil's true score lies within a range of possible scores. A 95% confidence interval can be calculated as the obtained score ±2*SEM. The standard errors of measurement for level 2 of the test are shown in Table 3.3.

Standard Errors of Measurement in Raw Score and Standard Score Units

Level/Form	Raw Score	Standard Score
2A	2.495	3.000
2B	2.455	2.885

In choosing words to include on the test, an examination was made of three spelling texts commonly used in Irish classrooms to teach spelling. Spellings appearing in at least two of the publications were included in the pilot as were high frequency words appearing in at least one. In addition, a variety of styles were used in the design of the test items. These included spelling words in isolation, identifying errors in misspelled words and spelling omitted words in the context of sentences and passages. Finally, feedback was sought from teachers on the appropriateness of the words chosen and the range of formats used. Together these procedures contribute to the validity of the spelling test.

Technical Information: Observation Survey of Early Literacy Achievement

This description of the six sub-tests of the OS is derived from Clay (2002) and Denton et al. (2006). The norms reported in the test manual were derived from a sample of 796 New Zealand children between the ages of 5 and 7 years drawn from a representative sample of 199 schools (4 from each school) with slightly more females than males represented. Stanine scores are reported for each task for children between the ages of 5.00-5.5 years (223 children in 2000), 5.51-6.0 years (170 children in 2000), 6.01-6.5 yearsnativechildren in 2000) and 6.51-7.0 years (173 children in 2000). In addition, mean scores, percentiles and stanines for each of these is provided in the manual. All of the sub-tests have alternative forms to reduce practice effects.

Concepts about print

This task assesses a child's knowledge of a number of concepts of print e.g. locating the beginning of a book, demonstrating understanding that the print carries the message of the book, direction of print, one-to-one correspondence, concept of first and last (letter, word) sequencing and the meaning of punctuation. Four books specially designed for the task are provided along with a scripted test administration. One point is given for each correct response out of a total of 24. This is a labour intensive test to administer and was not utilised in the study

Letter Identification

In this task the children are asked to identify all upper and lower case letters in the alphabet. Typecasts of the letters 'a' and 'g' are also included, thus giving a total of 54. Children may show their alphabet knowledge in any of three ways and any of the three are deemed acceptable: letter name, letter sound, a word beginning with the target letter sound. Credit is given for each letter that the child identifies using any of the 3 responses.

Writing vocabulary

In this task children are asked to write all the words that they know within a ten-minute period. A blank piece of paper and a pencil are provided and the test

administrator may prompt the children to help them get started. Several prompts are suggested in the OS such as: can you write your name? Your friends' names? Things people do? Things in the home? Things people ride in? Things people eat? One point is given for each word correctly spelled.

Hearing and recording sounds in words

This task is similar to a dictation. The OS contains scripted sentences for the administration of this task. Essentially, the teacher says the target sentence aloud slowly. It is then repeated slowly word for word and pupils are asked to repeat each word and write what they hear. The teacher may prompt the child for example to consider what the word begins with, to think of what other sounds can be heard and to leave a particular word and go on if the child is having difficulty. In scoring the test one point is given for each phoneme correctly spelled even though the whole word may not be correctly spelled. Five alternative versions of the dictation are given and each one has a total of 37 phonemes.

Running records of reading continuous text

In this task the child reads a piece of text aloud, usually from a finely graded set of levelled texts. Using standardised codes the teacher records what the child reads aloud, thus capturing the child's oral reading on paper, which can then be used for analysis and to inform future teaching. A distinction is made between scorable errors and non-scorable errors. Non-scorable errors include self-corrections, hesitations and repetitions. All other errors are scored and include miscues, appeals for help and words told by the tester. Using a scoring system the administrator of the test calculates a reading accuracy score for the child on the particular text. Instructional level is considered to be between 90-95% accuracy, independent level is above 95% and frustrational is below 90%. The Reading Recovery levels go from Level 1 to Level 30. Using the running record results, it is possible to place a child on a suitable instructional level text. The running record is then examined to determine the kinds of reading cues (visual, meaning, syntax) the child is using to decode words.

Technical Information: Middle Infant Screening Test

There are six subtests in the MIST, three of which are similar to the letter identification, written vocabulary and sentence dictation sub-tests in the Observation Survey of Early Literacy Achievement.

The first and sixth sub-test examine listening skills. They test children's ability to listen to a descriptive story and then to correctly identify a picture to match the story (pictures are covered while the story is read aloud). The sixth sub-test has more complex stories than sub-test one.

In the second sub-test the teacher says a word and asks the child to write the letter that corresponds to the beginning sound of the word, thus testing the children's memory for letters and their ability to associate a sound with the letter.

In sub-test three, the children are asked to write as many words as they can from memory in a ten minute time frame and are scored according to the number of words spelled correctly.

In sub-test four children are asked to write ten three phoneme words and are given one point for each correct phoneme.

Sentence dictation is the focus of sub-test five. Children are asked to write two simple sentences and are encouraged to use approximate spelling.

No information is provided in the manual on the reliability and validity of the test.

Appendix D

Final Interview: Teachers

Teaching skills/methods for literacy

1. We have covered a lot of methods and approaches to the teaching of reading over the course of the project. Which ones appealed to you the most? Which ones have you found most useful? Least useful? Which ones will you continue to use in the future?
2. Can you give me a picture of a typical reading lesson in your classroom? A mid-week one with the learning support team and a Monday/Friday one? What have you been emphasising in these lessons?
3. What does a typical writing workshop look like now at this stage of the year? What have you been working on in writing lessons?
4. What kinds of oral language opportunities would children have in a reading/writing lesson? How important is it, do you think, for children to have a voice in lessons?
5. What kinds of resources do you use regularly in a reading lesson? A writing lesson? How do they help to engage the children? How does this compare to before the project began?
6. How do you use your time for literacy now?
7. How do you plan for literacy lessons?

Assessment

1. What kinds of information do you document regularly? When/How do you do that? Do you use any specific assessment tools?
2. How do you use the information you gather?
3. In your opinion, how important is formative assessment to teaching? To differentiation? To the quality of teaching and learning in a lesson?
4. Have you tried having the children self-assess? When? How? Did it make any difference to their learning?

Texts/grouping

1. Since the majority of the children have outgrown the levelled texts at this stage, how have you matched the children to new texts?
2. What kinds of texts have you been using for reading instruction in the past month? How have they met the needs of the children?
3. Which grouping methods do you use to group the children? (e.g. are they always ability grouped?)
4. Do the groups remain constant? If not why? What makes you change them?
5. When you are working with a group what are the rest of the children doing?

Growth in children

1. What kinds of growth have you observed in the children in terms of reading skills? Writing skills? Knowledge of words? Strategies for word attack? Comprehension? Communication skills? Motivation to read/write? Confidence? Self-esteem? Attitude? Does it vary according to ability?
2. What do you think contributed to that growth? (Consistency? Being systematic? Resources? Differentiation? Your teaching methods? Parental involvement?)
3. Have they developed into readers? Writers? Which children will succeed in the education system? Why?

Collaboration

1. Do you collaborate with the other Second class teachers on planning? Teaching ideas?
2. When/how does this occur? Is it more / less frequent than before the project started? What suggestions would you have for making it more useful? Systematic?

3. How helpful do you find it? Or do you prefer to work alone?
4. How have you found the team-teaching works with learning support?
5. How useful has it been to have learning support teachers in the room three times a week? Is this meeting the needs of the children? Were you aware of what the learning support teachers were working on? How did you know? How did you build on their work with the children when they were not in the classroom e.g. Monday/Friday)
6. What suggestions would you have for improving the consultation with LS teachers?
7. Do the learning support teachers work with any of the children outside the classroom time? If so, how does this dovetail with what you are doing in the classroom?

Parental Involvement

1. What do the parents say about the project?
2. How do you involve the parents in their child's literacy development?
3. Would you like to see more parental involvement? How might this be achieved?

Subject knowledge

1. How do you think your subject knowledge around the teaching of literacy has changed since the beginning of the project?
2. What elements would you consider to be essential in a best practice literacy programme for first/second class children?
3. How important is the concept of metacognition, do you think? How does this knowledge help a child to learn?
4. Are there any other key concepts that have influenced your thinking about literacy in a significant way? Can you give an example?

Professional Development

1. What aspects of the professional development have you personally found most useful? (Readings? Demonstrations? DVDs? Observations? Planning meetings? In-service days? Provision of resources?) How have they impacted on your teaching?
2. What appealed to you the most? Which authors/books did you learn the most from? Why?
3. What would you have liked more of? Less of?

Sustainability

1. Without ongoing support do you think you be able to sustain this way of teaching? If so, how? What would you need to help you continue?
2. What modifications will you make and why?
3. How do you think the project might be extended throughout the school?

Final questions

1. Strengths/Positives of the project? (And reasons for each).
2. Weaknesses/Negatives of the project? (And reasons for each).
3. Successes of the project: what are they? How come?
4. Failures of the project: what are they? How might they be overcome?
5. What would you like to have done differently?
6. If the project was implemented again, what would you change and why?
7. What do you feel has been the highlight of the project for you personally?
8. How has the project benefited you personally? How has it benefited the school?
9. If you think back to how you were teaching reading/writing at the start of the project what changes if any, have you made to your teaching?
10. What advice would you give to a young teacher starting to teach reading to first/second class in a school such as this?
11. What advice would you give to the Department of Education on the teaching of reading and writing in disadvantaged schools?

Parent Focus Group Interview

Perception of the project

1. The literacy project is now in its second year. What have you heard about the project? What have you noticed about your children's reading and writing development since it began? How does this compare with other years? E.g. if you have older children?
2. What do the children say about the project?
3. What would you consider are the strengths/weaknesses of the project?

Literacy homework

1. What kinds of reading/writing homework do the children have?
2. How do you handle homework time with the children? What works well? What are the challenges?

Reading and writing outside school

1. Apart from homework do you notice the children doing any other kinds of reading and writing? Do they ever read/write for fun?
2. Do you ever read/write with them?
3. Do you ever go to the library? What do you notice about how they choose books to read?

Future expectations

1. How would you like to see the children progress in the next few years? What would your hopes be for them in the long term?
2. What are the challenges? How might the school better support you?
3. What advice would you give to parents of children in first class about helping/encouraging their children with reading and writing?
4. How do you think the literacy project could be improved? Expanded?

Final Interview: Children

Reading Questions (Repeat questions in red)

Attitudes to reading

1. Do you like reading? Why? Why not?
2. Do you have a favourite story? Book? Author?
3. What kinds of reading do you like? Stories? Poems? Information books? Comics?

4. Has this changed in any way since we got all of the new books?
5. How do you choose a book?
6. Show me what you are reading at the moment. What is your favourite part of the story? Why? Could you read me out your favourite part?

Reading instruction in school

1. I know you have been working hard on learning to be a better reader. Can you tell me what kinds of things you can do to figure out a **word** if you get stuck? What tools do you have?
2. What kinds of strategies/tools can you use to help you **understand** the story better? **Or** depending on responses: what are some of the things that good readers do when they read? (Make connections, visualise, ask questions, think about the words) **Or** Have you ever: made connections, visualised, asked questions, thought about the words, when you read? How does this help you understand the story?
3. Let's look at the book you are reading at the moment. Did you make any connections? Visualise? Ask questions? Note any new/hard words? Could you show me?
4. I know you have been working hard on learning new words in school. What are some of the most interesting ones you have learned? Have you used them in your stories that you write in the writing workshop?
5. What is the hardest/easiest thing for you in reading?
6. What do you like the best about reading in school?

Reading history

1. Do you read outside of school? When would you read? How often would you read? How long would you spend reading at home?
2. Do you ever Make Connections? Visualise? Ask questions? Or do you ever think about the words as you read on your own at home?
3. Do you ever talk to anybody about what you read?
4. How do you think you have changed/developed as a reader this year?

Perception of self as reader

1. Do you think it is important to be a good reader? Why?
2. What could you do to get better at reading?
3. Are you a good reader? How do you know?
4. Who are the good readers in your class? How do you know? Why are they good?

Writing Questions

Processes of writing

1. Where do you get your ideas for writing? How do you decide what to write about everyday?
2. What is the first thing you do when you are going to write? What do you do after that?
3. What do you do if you are stuck during writing?
4. What causes you to get stuck? E.g. Spelling? Ideas? Bored?
5. Does what you are **reading** ever help you come up with ideas for writing? Could you give me an example?
6. What can you do if you get stuck on spelling a word?
7. When you are writing do you ever think about who might like to read your writing?
8. When you are finished writing in school what do you do? Do you ever read back over your piece of writing and change it?
9. Have you ever revised a piece of writing? What does it mean to revise a piece of writing?
10. Have you ever published a piece of writing? How do you decide what to publish?

Experiences of writing in school

1. We have been doing a writing workshop in school since first class. What do you like/not like about it? What is your favourite part?
2. What kinds of things have you been working on to be a better writer?
3. Let's look at the first piece of writing you did for me last year and let's look at your writing for this week. How do you think you have changed as a writer?
4. What have you learned about writing in the writing workshop?
5. What is your best/favourite piece? Why do you think that is the best? Would you like to read it out to me?
6. You just had a visit from Oisin McGann. What did you learn about writing from him? What kinds of books does he write?
7. What would you like to learn next about writing?

Experiences of writing outside of school

1. Do you ever write for fun outside of school? What kinds of things have you written outside school? Who reads what you write outside school?

Purposes of Writing

1. Why do people write, do you think?
2. What kinds of writing are there? **Or** Do you try out different kinds of writing e.g. a made up story (fiction), reports, recipes, letters? What kinds of writing have you tried out?

Appendix E

Observation Framework: Strategy Lesson

Date: **Observer:**

O= observed; O+= Observed to a high level; N O= not observed

	Teaching the Strategy	**O**	**O+**	**N O**
(A)	Explains the purpose of the lesson			
(B)	Demonstrates **how** to use the strategy *(teacher shows rather than tells)*			
(C)	Models **how** to use the strategy using a think aloud and/or a specific activity e.g. KWL, predict-o-gram etc. *(Teacher does this in a step by step fashion using the actual language needed for the strategy e.g: first I look at the title and the cover, then I think what the story might be about, then I make a prediction. After that I read on to see if my prediction was correct.)*			
(D)	Explains **when** to use the strategy (this is a good strategy to use before reading, and/or during reading, and/or after reading).			
(E)	Explains **why** the strategy is useful (this will help you understand the story and it will help you think as you read and it is a strategy that good readers use)			
(F)	**Guides** the children to use the strategy using an **easy** level text when strategy is being introduced. *(Children should try out the strategy **in pairs** after seeing it modelled)*			
(G)	**Monitors** the children's use of the strategy and scaffolds giving corrective feedback as necessary			
(H)	Gives children the opportunity to try the strategy **on their own**			
(I)	**Takes notes** on how children are using the strategy and **uses** the information to inform future lessons			
(J)	Encourages **metacognition** by having children explain when, why and how to use the strategy			
(K)	Records the strategy on the 'Good Readers Chart' and reminds students to use the strategy when reading			
(L)	Provides opportunities for children to practice the strategy with less support using an instructional level text. (This could be done in the small groups on Tuesday, Wednesday and Thursday)			
(M)	Provides opportunities for children to apply the strategy to independent reading and conferences with children as they apply the strategy independently. (This could be on Friday. Repeat the demonstration first)			
	General Issues			
1.	All children are on task (Note evidence)			
2.	Children understand what they have to do (Note evidence)			
3.	Text chosen was appropriate to the strategy and reading ability of the children			

Appendix F

Comparison of DSRT Between January and June First Class

An overall comparison of performance between January and June 2006 was made using a matched-pairs t-test. The mean scores and standard deviations are given in Table A. The mean scores convert to a percentile rank of 10 and 37 respectively.

Table A Mean standard scores, standard deviations, and standard errors of the mean on the DSRT, January First class and June Second class

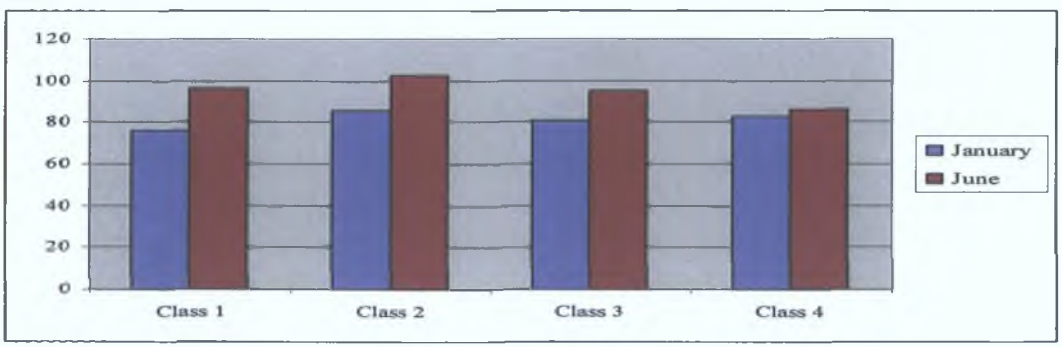
	Mean	N	Std. Dev.	Std. Error Mean
D SRT SS January First class	81.3	56	11.34	1.52
DSRT SS June First class	95.1	56	12.98	1.73

The difference between the January and June mean scores is statistically significant (t (55) = 8.444, df = 55, p. <.001) (Table B). An effect size was computed to describe the overall impact of the intervention over the first six months. Using Cohen's *d*, an effect of 1.13 was obtained. This can be interpreted as 'large' (Cohen, 1988)[5] though Class D did not make statistical gains. Individual class gain scores on the DSRT are shown in Figure A.

Table B Paired t-test to examine statistical significance in gains between January, First class and June, First class

	Paired differences					t	df	Sig. 2-tailed
	Mean	Std.Dev.	S.E.M.	95% confidence				
				Upper	Lower			
Pair 1 DSRT Jan DSRT June	-13.73	12.17	1.63	-16.99	-10.47	-8.444	55	.000

Figure A Individual class gain scores on DSRT (January–June First class) in standard score units



[5] Cohen (1988) defined effect sizes as "small", when *d* = 0.2, "medium" when d = 0.5,' and "large" when, *d* = 0.8. Hence the obtained value of d (1.13) can be considered to be large.

Comparison of DSRT Between June First class and February Second class

The mean scores of each individual class were compared for the period June to February to see if there were any changes within individual classes. As can be seen from the table below, Class D had the lowest drop in score (.1) and Class A had the highest with 2.3.

Comparison of standard score performance on the DSRT across four classes in June, First class and February, Second class

Group			Mean	Number	Std. Dev.
Class A	Pair 1	DSRT SS June First class	96.6	14	12.70
		DSRTSS Feb Second class	94.3	14	14.26
Class B	Pair 1	DSRT SS June First class	101.7	13	9.18
		DSRTSS Feb Second class	99.8	13	9.09
Class C	Pair 1	DSRT SS June First class	96.9	13	12.57
		DSRTSS Feb Second class	95.6	13	10.99
Class D	Pair 1	DSRT SS June First class	85.5	13	13.31
		DSRTSS Feb Second class	85.4	13	13.15

Correlation between Scores on the DSRT June, First Class and February, Second class.

		N	Correlation	Sig.
Pair 1	DSRT June First class DSRT February Second class	53	.857	.000

The correlation between DSRT scores obtained in June of First class, and those obtained in February of Second class was .86 (see above), indicating consistency in the scores achieved by individual pupils within the cohort.

A paired t-test was run to determine if the overall differences between scores in June of First class and February of second class were statistically significant and these are illustrated in the table below. As the p value exceeds .05 there was no significant gain in this time period.

Standard scores comparison DSRT June First class and February Second class

		Paired differences					t	df	Sig. 2
		Mean	Std.D.	S.E.M.	95% confidence				
					Upper	Lower			
Pair 1	DSRT June 1st Feb 2nd	1.4	6.96	.96	-.50	3.33	1.48	52	.145

Comparison of DSRT Between February Second Class and June Second Class

Table A indicates the strong correlation (.892) between the two tests.

Table A: Correlation between results on the DSRT, February and May Second class

		N	Correlation	Sig.
Pair 1	DSRTSS February Second class & DSRT SS May Second class SS	52	.892	.000

Table B presents the overall changes in achievement for the whole group during this period. The mean standard score increased by almost 4.5 points.

Table B: Mean scores, standard deviations and standard errors of mean on the DSRT between February and June, Second class

		Mean	N	Std. Dev.	Std. Error Mean
Pair 1	DSRT Feb 07 SS	94.1	52	12.70	1.76
	DSRT May 0 7SS	98.6	52	12.96	1.80

A t-test was run to examine if the overall difference (4.46 standard score points) was statistically different. As indicated in Table C, the difference between the February and May mean scores is statistically significant (t (51) = 5.381, p. <.001). An effect size was computed to describe the impact of the intervention for these 3 months. Using Cohen's d, an effect of 0.35 was obtained which can be considered small to medium (Cohen, 1988)[6].

Table C: Paired t-test to examine statistical significance in gains between February, Second Class and May Second Class

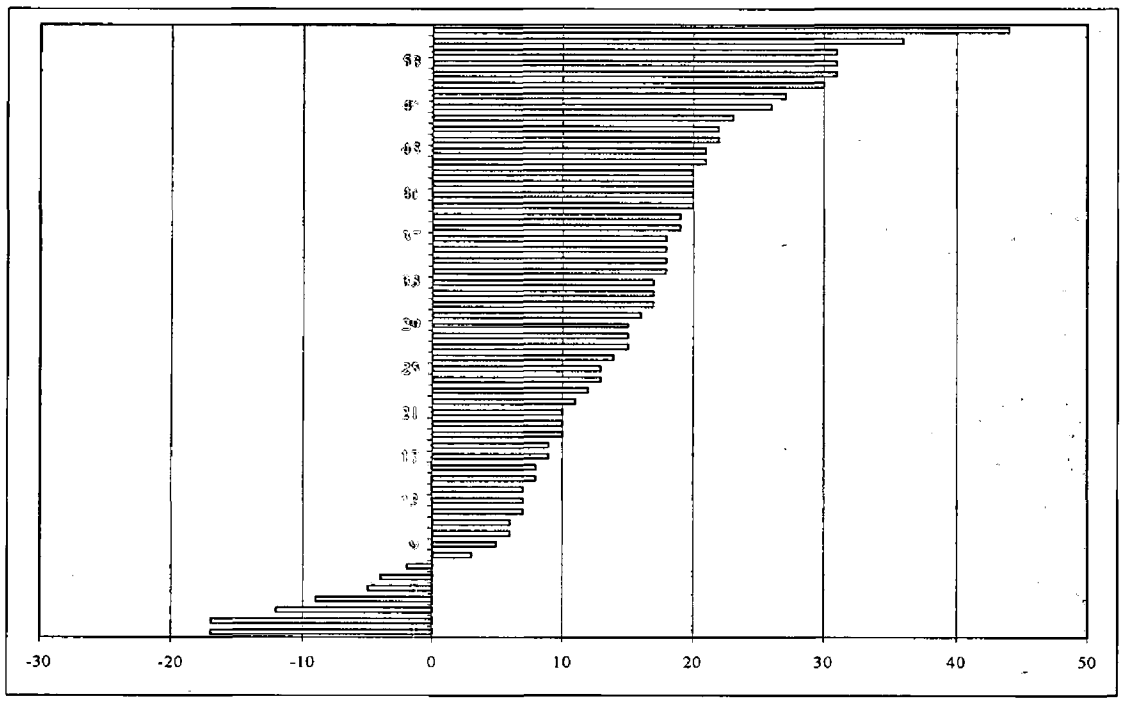
		Paired differences					t	df	Sig. 2-tailed
		Mean	Std. Dev.	S.E.M.	95% confidence				
					Upper	Lower			
Pair 1	DSRT Feb 2nd May 2nd	-4.46	5.98	.83	-6.13	-2.80	-5.381	51	.000

[6] Cohen (1988) defined effect sizes as "small", when $d = 0.2$, "medium" when d = 0.5,' and "large" when, $d = 0.8$. Hence the obtained value of d (.53) can be considered to be medium.

Gain Scores on the DSRT Between January and June of First Class

Almost all children made positive gain scores. Scores ranged from + 44 to –17 with an average gain score of 12.9 points. Of the 7 children with negative gains scores, 4 fell within the bounds of the standard error of measurement. Two of the other three had each missed 17, 18 days of school respectively and one presented with attentional difficulties and was awaiting assessment. The other child was had very difficult home circumstances. All of these children were from the Class D which had particular challenges to contend with (documented in chapter 10, page 8).

Individual gain scores on DSRT (January First class- June First class) in standard score units



Nonsense Word Test Results in First Class

An analysis of variance (ANOVA) was conducted to compare the mean scores of the classes on the Nonsense Word Test in June of First class (Table A).

Table A ANOVA for differences between First Classes on Nonsense Word Test, June First class

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3211.135	3	1070.378	8.218	.000
Within Groups	6642.974	51	130.254		
Total	9854.109	54			

Sig at the $p<0.5$ level

The Scheffe Post-hoc test was then conducted to see whether there were significant differences among the classes. As indicated in the Table B below, significant differences were found between Class B and Classes C and D.

Table B Scheffe post-hoc dependent variable Nonsense Word Test June, First class

					95% Confidence Interval	
(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
Class B	Class A	10.42	4.48	.160	-2.56	23.40
	Class C	19.36(*)	4.18	.000	7.30	31.45
	Class D	16.77(*)	4.40	.005	4.06	29.49

* The mean difference is significant at the .05 level.

Writing Performance Between October and June of First Class

A second writing sample was taken in June of First class. Table A gives the mean score difference between October and June of First class. It shows an improvement of 3.6 points, indicating that the average score for the cohort had moved from below Level 1 to level 2C.

Table A: Writing Sample in June First Class

		Mean	N	Std. Dev.	Std. Error Mean
Pair 1	Baseline writing Oct First class	3.5	50	1.50	.21
	Writing June First Class	7.1	50	1.10	.16

A paired-t test ascertained that the overall mean difference in scores was significant (Table B). Using Cohen's d, an effect size was computed to determine the level of change for this period. An effect of 2.74 was obtained which can be considered large (Cohen, 1988). Writing scores per class are presented in Table C.

Table B Test of significance of mean score differences between achievement in writing between October, First class and June, First class

		Paired differences					t	df	Sig. 2-tailed
		Mean	Std. Dev.	S.E.M.	95% confidence				
					Upper	Lower			
Pair 1	Baseline writing Oct.- Writing June First class	-3.54	1.74	.25	-4.03	-3.01	-14.383	49	.000

Table C: Mean Writing Scores by Class (Oct to June, First class)

Group			Mean	N	Min	Max	Std. Dev.	Std. Error Mean
Class A	Pair 1	October First class	2.7	12	2.00	5.00	.89	.26
		June First class	7.8	12	7.00	8.00	.45	.13
Class B	Pair 1	October First class	4.2	11	2.00	7.00	1.66	.50
		June First class	7.8	11	6.00	9.00	.75	.23
Class C	Pair 1	October First class	3.6	15	2.00	6.00	1.35	.35
		June First class	6.3	15	2.00	8.00	1.22	.32
Class D	Pair 1	October First class	3.8	12	2.00	7.00	1.76	.51
		June First class	6.8	12	6.00	8.00	.87	.25

Writing Performance Between June of First Class and February of Second Class

Samples of writing were collected again mid-year of second class. Results for this period are shown in Table A. The overall mean changed by 1.1 points. When a paired t test was run to ascertain if this change in performance was statistically significant it emerged that it was (See Table B). When Cohen's D was applied an effect size of .81 was found which can be considered to be bordering on large.

Table A: Overall mean score differences between June 1st Class and February 2nd Class

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Writing June 1st Class	7.0	53	1.29	.18
	Writing February 2nd class	8.1	53	1.41	.19

Table B: T-test to Examine Significance of Overall Difference in Writing Performance between October and June of First Class

		Paired differences					t	df	Sig. 2-tailed
		Mean	Std.D.	S.E.M.	95% confidence				
					Upper	Lower			
Pair 1	Baseline writing June 1st - writing February 2nd class	-1.1	.77	.11	-1.31	-.88	-10.398	52	.000

Table C: T-tests to Examine the Significance Differences in Writing Performance Between June of First class and February of Second Class

Paired Samples: June First Class-February 2nd	Paired differences					t	df	Sig. 2-tailed
	Mean	Std.D.	S.E.M.	95% confidence				
				Upper	Lower			
Class A	-.7	.91	.24	-1.24	-.19	-2.924	13	.012
Class B	-1.8	.60	.18	-2.22	-1.41	-10.000	10	.000
Class C	-1.1	.50	.13	-1.40	-.86	-9.000	15	.000
Class D	-.8	.58	.17	-1.20	-.47	-5.000	11	.000

Writing Performance Between February and June of Second Class

Samples of writing were collected again at the end of the study. Table A shows the changes in achievement between February and June of Second class. This indicates that the overall mean score increased from 8.1 to 8.8, a rise of 0.7 points indicating that the average performance was at level 2B. Mean achievement scores for each class are shown in Table C.

Table A Overall Mean Scores in Writing. February to June, Second Class

		Mean	N	Std. Dev.	Std. Error Mean
Pair 1	Writing February Second	8.1	53	1.41	.19
	Writing June Second	8.8	53	1.50	.21

As indicated in Table B, the difference between the February and June mean scores in Second class is statistically significant (t (52) = 6.577, p. <.001).

Table B T-tests to examine the significance of differences in writing performance between February and June, Second class

		Paired differences					t	df	Sig. 2-tailed
		Mean	Std.Dev	S.E.M.	95% confidence				
					Upper	Lower			
Pair 1	February 2nd - June 2nd	-.72	.80	.11	-.94	-.50	-6.577	52	.000

Table C: Mean achievement scores in writing for each class between February and June, Second class

Group		Writing	Mean	N	Std. Dev.	Std. Error Mean
Class A	Pair 1	February Second	8.5	14	.94	.25
		June Second	9.4	14	1.09	.29
Class B	Pair 1	February Second	9.6	11	1.03	.31
		June Second	10.1	11	1.14	.34
Class C	Pair 1	February Second	7.1	16	1.41	.35
		June Second	8.2	16	1.60	.40
Class D	Pair 1	February Second	7.6	12	.67	.19
		June Second	7.8	12	.94	.27

Appendix G

Nonsense Word Test

Nonsense Word Test

cad	**hig**	**peb**	**mun**	**ref**
wom	**yat**	**quef**	**emp**	**bev**
rath	**pute**	**whid**	**shale**	**chirl**
drope	**gril**	**larch**	**berg**	**soam**
flime	**crad**	**flet**	**lawp**	**prew**
roud	**heab**	**ilp**	**grail**	**surt**
blox	**hoy**	**biel**	**coip**	**gaip**
pheke	**boof**	**gep**	**cet**	**cyl**
gid	**gyn**	**zay**	**rizet**	**penum**
drapic	**vidded**	**glonpug**	**denster**	**pubrot**